



Effect Of East African Community Regional Integration on Socio- economic Welfare in Rwanda

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Abstract: This study investigated the effect of East African Community (EAC) regional Integration on socio-economic welfare, with particular emphasis on examining the effect of the free movement of labour under the EAC regional integration framework on socio-economic welfare in Rwanda. Guided by the Harris–Todaro Migration Theory, the study adopted a descriptive cross-sectional mixed-methods design. From a target population of 279 individuals drawn from Government institutions, EAC bodies, private sector actors, traders, transport operators and community members, a sample of 164 respondents was selected. Data were ultimately collected from 152 respondents, comprising 136 respondents who completed and returned questionnaires, which were subsequently analyzed, and 16 key informants. Data were collected using questionnaire, interviews, and document review. Quantitative data were analyzed using SPSS version 23, while qualitative data were analyzed thematically. Findings revealed that labour mobility positively contributed to socio-economic welfare through increased employment opportunities, income generation, skills transfer, and access to regional labour markets. Correlation analysis showed a strong positive relationship between free movement of labour and socio-economic welfare ($r = 0.675$, $p < 0.01$). Regression results indicated a significant positive effect ($\beta = 0.523$, $p < 0.001$). The study concluded that labour mobility significantly enhances socio-economic welfare in Rwanda and recommended strengthening the implementation of the EAC Common Market Protocol.

Keywords: Free movement of labour; labour mobility; East African Community; regional integration; socio-economic welfare; Rwanda; migration.

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1. Introduction

The free movement of labour is widely identified in the development-economics literature as an important dimension of regional economic integration. Todaro and Smith (2020) and the International Labour Organization (ILO, 2019) emphasise that cross-border labour mobility reallocates workers to where their marginal productivity is highest, reduces structural unemployment in origin economies and supplies destination economies with skills and labour. The ILO (2021) further notes that the welfare outcomes of migration depend less on movement itself than on the legal, social-protection and labour-market

conditions attached to it. Adeyemi and Nwosu (2021) document that remittance flows associated with regional labour mobility have become a critical household-income channel in African regional blocs, while the World Bank (2022) frames the policy challenge as one of facilitating mobility while protecting rights.

The Harris-Todaro migration model provides the principal theoretical anchor for the present manuscript. The model posits that migration decisions are shaped by the expected wage differential between destination and origin labour markets, adjusted for the probability of obtaining employment at the destination. The model therefore predicts that Rwandan workers will move to other EAC

partner states when the expected urban-sector wage there exceeds the expected wage in Rwanda. The expected-wage logic underlies the welfare pathways tested in this manuscript because employment abroad, remittance flows and skills transfer are all functions of the same underlying mobility decision. International Labour Organization (2019) and Todaro and Smith (2020) provide the canonical elaboration of the framework for development-policy analysis.

The welfare pathways through which labour mobility translates into socio-economic outcomes are now well established in the literature. Mobility can open employment opportunities not available domestically, which can raise household income either through the migrant's own earnings or through remittances to origin households (Mutesi & Karume, 2022; Nkundwa, 2023). Higher household income, in turn, can finance investments in education, healthcare, housing and consumption, raising living standards. Mobility also enables workers to acquire new skills and knowledge, which can raise productivity on return and feed back into domestic labour-market outcomes (Meier & Schubert, 2020; Mukasa, 2018). In addition, mobility can raise labour-force participation by drawing under-employed workers into formal activity, and can reduce unemployment where mobility absorbs surplus labour.

Comparative evidence from other regional blocs reinforces the analytical case. In the European Union, mobility and productivity outcomes have been particularly intensive for middle- and high-skilled migrants, with Smith and Alvarez (2019) and Meier and Schubert (2020) emphasising institutional conditions behind integration benefits. In West Africa, Adeyemi and Nwosu (2021) and Okafor (2021) show similar mechanisms at work, with remittances emerging as a key channel for welfare gains. The cross-regional pattern suggests that the welfare promises of labour mobility are neither automatic nor uniform; they depend on the depth of regional integration, the design of labour-regulation regimes and the portability of qualifications and social protection.

The East African Community launched its Common Market Protocol in 2010 with the explicit objective of progressively eliminating restrictions on the free movement of labour, alongside goods, services and capital (East African Community, 2010). The EAC Secretariat (2021) reports progress but acknowledges persistent barriers, particularly around work permits, qualification recognition and administrative procedures. The East African Community Secretariat (2023) and the International Labour Organization (2021) jointly underline that implementing labour-mobility provisions requires Objective: To examine the effect of the free movement of labour on socio-economic welfare in Rwanda within the

harmonisation across national labour regulations and active enforcement of migrant-worker rights. The World Bank (2022) similarly frames the realisation of EAC labour-mobility gains as contingent on policy harmonisation.

Rwanda joined the EAC in 2007 and has progressively aligned its migration framework with the Common Market Protocol. Kamuhanda (2023) reports that EAC membership has been associated with economic growth and social-welfare gains in Rwanda, and Nkundwa (2023) finds that Rwandan migrant workers in EAC partner states experience measurable welfare improvements through employment income and remittances. Musoni and Nyiramahoro (2022) also describe how Rwanda has leveraged EAC membership for regional trade and investment, though they caution that labour-mobility barriers persist. Rwanda's regional labour-migration trajectory therefore provides an empirical opportunity to test the effect of free movement of labour on socio-economic welfare as perceived by stakeholders.

1.2. Problem statement

Despite the regional and country-level evidence, persistent barriers continue to shape the realisation of the welfare promise. Mutesi and Karume (2022) document significant obstacles in Uganda and Kenya, and Musoni and Nyiramahoro (2022) describe similar barriers within the EAC. The principal barriers are work permits, recognition of professional qualifications, divergent labour regulations, complex administrative procedures, weak migrant-worker protection and limited portability of social security. The theoretical and empirical contribution of this manuscript is to test the welfare effect of labour mobility in Rwanda while explicitly acknowledging that the relationship is mediated by these unresolved administrative and regulatory conditions.

1.3 Research Questions/Objectives

The research gap addressed by this study is the limited empirical evidence on how the specific dimension of free movement of labour, situated within the EAC integration framework, affects multiple dimensions of socio-economic welfare in Rwanda. Existing studies tend to examine migration or regional integration separately rather than testing the specific effect of labour mobility on welfare. This study addresses that gap by isolating the first specific objective of the parent dissertation. Accordingly, this study examined the effect of free movement of labour on socio-economic welfare in Rwanda within the framework of East African Community regional integration.

framework of East African Community regional integration.

Null hypothesis (H_0): The free movement of labour within the EAC integration framework has no statistically significant effect on socio-economic welfare in Rwanda.

2. Literature Review

This section reviews literature on the effect of the free movement of labour on socio-economic welfare in Rwanda within the East African Community (EAC) framework. It examines the Harris–Todaro Migration Theory and empirical studies on labour mobility, employment, income generation, remittances, and skills transfer. The chapter also explores the implementation of the EAC Common Market Protocol and its influence on labour mobility and welfare outcomes. By analyzing existing evidence, it identifies knowledge gaps and provides a theoretical and empirical foundation for the study.

2.1. Conceptual Review

This section examines the concept of free movement of labour as a key dimension of East African Community (EAC) regional integration. It focuses on how labour mobility facilitates employment opportunities, income generation, skills transfer, and knowledge exchange across member states. Understanding this concept is essential for analyzing its contribution to socio-economic welfare and development outcomes in Rwanda.

2.1.1. Free Movement of Labor

Free movement of labor is a fundamental component of regional economic integration that involves reducing legal and administrative barriers to enable individuals to seek employment and reside across member states. According to Todaro and Smith (2020), labor mobility promotes efficient allocation of human resources by allowing workers to move from areas of limited employment opportunities to regions with higher labor demand, thereby increasing productivity and economic welfare. Beyond economic benefits, labor mobility facilitates social integration, cultural exchange, and regional cohesion while generating remittances that support household income, education, healthcare, and poverty reduction (Adeyemi & Nwosu, 2021; Mukasa, 2018). The realization of these benefits depends on harmonized labor regulations, social-protection systems, and mutual recognition of qualifications (World Bank, 2022). In Rwanda, EAC labor-mobility provisions have expanded employment opportunities and enhanced household welfare through remittances and income generation. However, challenges such as differing labor regulations, visa requirements, and administrative barriers continue to limit the full socio-

economic benefits of labor mobility (Musoni & Nyiramahoro, 2022).

2.2. Theoretical Framework

This study is anchored in the Harris-Todaro Migration Theory, which provides the theoretical foundation for examining the effect of free movement of labour on socio-economic welfare in Rwanda. The theory explains that individuals migrate when expected employment opportunities and wages in destination labour markets are higher than those available in their origin areas. This framework helps analyze how labour mobility influences employment, income generation, remittances, and household socio-economic welfare.

2.2.1 Harris–Todaro Migration Theory

The Harris–Todaro migration model, developed by John R. Harris and Michael P. Todaro in 1970, emerged as a refinement of neoclassical labor market theory to explain rural-to-urban migration in developing countries. Unlike traditional models that assumed migration decisions were based purely on wage differentials, Harris and Todaro argued that migration decisions are instead based on expected income, taking into account the probability of employment in the urban sector. Their model was groundbreaking in incorporating urban unemployment as a persistent phenomenon rather than a temporary disequilibrium. Over time, the model has been adapted to international labor mobility, especially within regional blocs like the East African Community (EAC), where member countries agree to ease restrictions on cross-border labor movement (Todaro & Smith, 2020).

The central premise of the Harris–Todaro theory is that people migrate not because urban wages are higher in absolute terms, but because their expected gains adjusted for employment probability are greater. It explains why labor moves from low-productivity sectors to high-wage urban or foreign areas, despite high unemployment risks. However, critics argue that the theory oversimplifies complex human behaviour by assuming rational decision making and full information. It also underrepresents non-economic factors such as family ties, culture, education, and gender dynamics. Moreover, it is often critiqued for failing to incorporate the informal sector, which is substantial in many African urban economies, where many migrants end up working under precarious conditions without formal protections (ILO, 2019; Adeyemi & Nwosu, 2021).

This theory is especially relevant to this study as it provides a conceptual lens for analyzing the impact of the free

movement of labor on Rwanda's social economic welfare. Under the EAC framework, Rwanda has allowed its citizens to work freely in partner states such as Kenya, Uganda, and Tanzania. The model helps assess how such mobility affects employment opportunities, wage improvements, and remittance flows to Rwandan households. These benefits, in turn, can positively influence education, healthcare access, and overall well-being. However, the theory also helps contextualize limitations, such as mismatches in labor qualifications and persistent immigration controls, which may limit the full realization of expected outcomes in Rwanda (Kamuhanda, 2023).

2.3. Empirical Review

This section reviews empirical studies examining the relationship between free movement of labour and socio-economic welfare. It considers evidence from global, African, East African Community (EAC), and Rwandan contexts to assess how labour mobility influences employment opportunities, income generation, remittances, skills development, and household living standards. The review also examines challenges affecting labour mobility, including administrative barriers, work permits, recognition of qualifications, and labour-market regulations. By analyzing existing empirical evidence, the review identifies trends, inconsistencies, and research gaps concerning the effect of free movement of labour on socio-economic welfare in Rwanda.

2.3.1. Free Movement of Labor and Socio-Economic Welfare

From a global perspective, Smith and Alvarez (2019) conducted an extensive evaluation of Canada's Temporary Foreign Worker Program involving labor migrants from several Latin American countries. Their quantitative analysis found that host country productivity increased by approximately 3.8% annually due to the influx of skilled and semi-skilled migrant workers filling critical labor shortages. Simultaneously, remittance flows to sending countries grew by 12% per annum, directly lifting household incomes and improving living standards. Despite these gains, the authors cautioned that without comprehensive labor protections, nearly 40% of migrant workers faced exploitation or precarious employment conditions, which diminished the potential welfare benefits. This study highlights a significant policy tension: while free movement of labor can drive economic growth and poverty reduction, the absence of robust social safeguards undermines long-term social equity. The research underscores the critical need for balanced labor

migration frameworks that protect migrant rights while fostering economic integration.

Focusing on developed countries, Meier and Schubert (2020) analyzed labor migration trends within the European Union, with a particular focus on Germany's labor market absorption of migrants from Eastern European countries such as Poland and Romania. Their econometric modelling revealed that migrant workers contributed to a 2.5% increase in Germany's GDP growth over five years, and fiscal analyses showed a net positive impact of €1.2 billion annually in tax revenues due to migrant employment. Additionally, remittances sent back to origin countries accounted for a 9% rise in household consumption and a 15% increase in school enrolment rates in rural communities. However, the study pointed out persistent challenges regarding social integration, noting that nearly 30% of migrants faced social exclusion and barriers to accessing vocational training, which limited human capital development in sending countries. This suggests that the benefits of labor mobility extend beyond economic output and require complementary social policies to support migrant integration and human development.

In the Sub-Saharan African context, Okafor (2021) explored the effects of labor migration within the Economic Community of West African States (ECOWAS), comparing Ghana and Nigeria. His survey-based study indicated that approximately 55% of migrant workers engaged in informal cross-border employment reported increased household income by an average of 25%, enabling better access to healthcare and education for their families. However, Okafor found that only 18% of migrants had access to any form of social security, reflecting inadequate institutional frameworks such as social protection portability across borders. This gap significantly undermined the ability of labor mobility to generate sustainable welfare improvements and poverty reduction. The research identifies a crucial gap in understanding how regional labor agreements can be strengthened to include social protection mechanisms that ensure equitable benefits for migrant workers and their families.

Within the East African Community (EAC), Mutesi and Karume (2022) examined labor mobility between Uganda and Kenya, using a mixed-methods approach combining labor market data and interviews. Their findings showed that cross-border employment increased by 22% between 2015 and 2020, contributing to household income increases of up to 30% for migrant families in Uganda. However, the study highlighted significant regulatory challenges, such as inconsistencies in work permit issuance and a lack of mutual recognition of professional qualifications, which reduced labor market fluidity. The researchers argued that

these policy discrepancies inhibited the full realization of the social and economic benefits of labor mobility. Their work reinforces the importance of regional policy harmonization and points to a gap in the implementation of integrated labor governance frameworks that facilitate seamless worker movement and protect migrant rights.

Focusing specifically on Rwanda, Nkundwa (2023) conducted a case study of Rwandan migrant workers in Kenya and Tanzania, surveying 500 migrants across sectors such as agriculture, services, and manufacturing. The study revealed that 68% of migrant workers experienced a 35% increase in household income through employment abroad and remittances. Furthermore, children in migrant households were 20% more likely to be enrolled in school compared to non-migrant families. Despite these positive outcomes, the study documented challenges including weak enforcement of labor rights, reported by 27% of respondents, and instances of workplace discrimination, which limited social welfare improvements. Nkundwa emphasizes the need for stronger governance and institutional support within Rwanda and at the EAC level to safeguard migrant worker rights and ensure the sustainability of socioeconomic gains from labor mobility. This highlights an important research gap regarding the effectiveness of current legal and institutional frameworks in protecting migrant workers and maximizing social welfare in the context of regional integration.

3. Methodology

3.1 Research Design

The study adopted a descriptive cross-sectional research design with a mixed-methods approach, consistent with the methodological framework of the parent dissertation. The study was conducted in Rwanda and examined the effect of the free movement of labour within the East African Community (EAC) regional integration framework on socio-economic welfare. The mixed-methods approach enabled the study to obtain quantitative evidence from respondents through structured questionnaires and qualitative insights from key informants through interviews and documentary review.

3.2 Sampling and Sample Size

The target population comprised 279 stakeholders drawn from five categories: government officials (12), regional trade bodies and EAC institutions (4), private-sector actors (12), traders and transport operators (84), and community members (167). Using Yamane's formula at a 95%

confidence level and 5% margin of error, a sample size of 164 respondents was determined.

For the quantitative component, stratified random sampling was used to allocate respondents proportionally across the five population strata. A total of 148 questionnaires were distributed to the selected quantitative respondents. Of these, 136 valid questionnaires were completed and returned, representing a 91.9% response rate.

For the qualitative component, purposive sampling was used to select key informants with relevant knowledge and experience concerning EAC regional integration and labour mobility. Sixteen key informants were interviewed, comprising seven government officials, two representatives from regional trade bodies and EAC institutions, and seven private-sector actors. All 16 selected key informants participated, giving a 100% response rate for the qualitative component.

Consequently, the study obtained data from 152 participants, consisting of 136 questionnaire respondents and 16 key informants. The combined response rate was 92.7% of the intended sample of 164.

3.3 Data Collection Tools

Three data collection tools were used where structured questionnaire, a key informant interview guide, and a document-review guide.

The structured questionnaire was used to collect quantitative data. It consisted of statements measuring free movement of labour, trade liberalisation, infrastructure development and socio-economic welfare. Responses were measured using a five-point Likert scale, ranging from 1 = Strongly Disagree to 5 = Strongly Agree.

The validity of the questionnaire was established through expert review. The study obtained a Content Validity Index (CVI) of 0.90. A pilot study was also conducted to assess the consistency of the questionnaire items. Cronbach's alpha coefficients were 0.821 for free movement of labour, 0.847 for trade liberalisation, 0.804 for infrastructure development, and 0.876 for socio-economic welfare, all exceeding the commonly used threshold of 0.70.

The interview guide was used to collect qualitative information from the 16 purposively selected key informants. In addition, documentary review was conducted using relevant EAC and Rwanda policy documents.

3.4 Data Collection Procedure

The data collection process involved administering the structured questionnaires to the respondents selected for the quantitative component and conducting key informant interviews with the purposively selected participants for the qualitative component. A total of 148 questionnaires were distributed, of which 136 valid questionnaires were returned and subsequently included in the quantitative analysis.

For the qualitative component, sixteen key informant interviews were conducted with government officials, representatives of regional trade bodies and EAC institutions, and private-sector actors. The interviews were subsequently transcribed for analysis. Documentary review was also undertaken using relevant EAC and Rwanda policy documents to complement the primary data obtained from questionnaires and interviews.

3.5 Data Analysis

Both quantitative and qualitative data analysis techniques were employed. Quantitative data obtained from the completed questionnaires were analysed using IBM SPSS Statistics, Version 23. Descriptive statistics, specifically means and standard deviations, were used to summarise respondents' perceptions of the study variables.

Pearson correlation analysis was used to examine the bivariate relationship between free movement of labour and socio-economic welfare. In addition, multiple linear regression analysis was conducted to assess the effect of free movement of labour on socio-economic welfare while controlling for trade liberalisation and infrastructure development. Hypothesis testing was conducted at the 0.05 level of significance.

Qualitative data obtained from the key informant interviews and documentary review were analysed thematically. The interviews were transcribed and examined to identify themes relevant to free movement of labour and socio-economic welfare, following the thematic analysis approach described by Terry (2020).

3.6 Ethical Considerations

Ethical considerations were observed throughout the study. Participants were informed about the purpose of the study and participated on the basis of informed consent and voluntary participation. Confidentiality and anonymity of participants were maintained during data collection, analysis and reporting. The study also obtained the necessary institutional approval from the University of Kigali before the research was conducted.

4. Results and Discussion

4.1. Demographic Characteristics of Respondents

This section presents the demographic characteristics of the respondents who participated in the study on the effect of East African Community (EAC) regional integration on socio-economic welfare in Rwanda. The demographic information includes respondents' sex, age, and education level. These characteristics are important because they help in understanding the background of the respondents and provide insights into whether they possess adequate knowledge and experience regarding East African Community regional integration and its contribution to socio-economic welfare in Rwanda.

Table 1: Demographic Characteristics of Respondents

Variable	Category	Frequency	Percent (%)
Sex	Male	82	60.3
	Female	54	39.7
	Total	136	100
Age	25–35 Years	42	30.9
	36–45 Years	56	41.2
	Above 45 Years	38	27.9
	Total	136	100
Education Level	Secondary Level	21	15.4

Variable	Category	Frequency	Percent (%)
	Diploma	36	26.5
	Bachelor's Degree	60	44.1
	Master's Degree	17	12.5
	PhD	2	1.5
	Total	136	100

Table 1 presents the demographic characteristics of respondents who participated in the study on the effect of East African Community (EAC) regional integration on socio-economic welfare in Rwanda. The demographic characteristics considered in this study included sex, age, and education level. These characteristics were important in understanding the background of the respondents and determining whether they possessed adequate knowledge and experience concerning regional integration and socio-economic welfare in Rwanda.

The findings on sex distribution indicate that the majority of respondents were male, representing 60.3%, while female respondents accounted for 39.7% of the total respondents. This implies that both men and women participated in the study, although males constituted a slightly larger proportion. The participation of both genders was important because it provided diverse perspectives regarding the implementation of East African Community regional integration policies and their contribution to socio-economic welfare in Rwanda. The implication of these findings is that issues relating to regional integration affect both male and female stakeholders, thereby making their participation essential in obtaining balanced and reliable information for the study.

Regarding the age distribution, the findings reveal that the majority of respondents, representing 41.2%, were aged between 36–45 years, followed by respondents aged between 25–35 years who represented 30.9% of the sample. Respondents aged above 45 years accounted for 27.9%. These findings suggest that the majority of respondents were mature and economically active individuals who are likely to possess adequate knowledge and practical experience concerning East African Community regional integration and socio-economic development in Rwanda. The implication of these findings is that respondents within the active working-age group are more likely to understand regional trade, labour mobility, infrastructure development, and other integration initiatives because they are directly involved in economic and social activities influenced by these policies.

Concerning education level, the findings show that the majority of respondents, representing 44.1%, possessed a Bachelor's Degree, while 26.5% had Diploma qualifications, 15.4% had attained Secondary Level education, 12.5% possessed Master's Degrees, and 1.5% held PhD qualifications. These findings indicate that the respondents had diverse educational backgrounds, with the majority having attained tertiary education. The implication of these findings is that educated respondents are more likely to understand issues relating to labour mobility, trade liberalization, infrastructure development, regional connectivity, and socio-economic welfare, thereby providing informed and reliable responses. Furthermore, the inclusion of respondents with secondary and diploma qualifications ensured that the perspectives of traders, transport operators, and community members who directly experience the effects of East African Community regional integration were adequately represented. Consequently, the educational profile of the respondents enhanced the credibility, reliability, and comprehensiveness of the information collected during the study.

4.2. Descriptive Statistics

This section presents the descriptive statistics relating to the study objectives on the effect of East African Community (EAC) regional integration on socio-economic welfare in Rwanda. The analysis focuses on respondents' perceptions regarding free movement of labour, trade liberalization, and infrastructure development and regional connectivity as the key dimensions of EAC regional integration influencing socio-economic welfare. The responses were measured using a five-point Likert scale where: Strongly Agree = 5, Agree = 4, Neutral = 3, Disagree = 2, and Strongly Disagree = 1. The findings are presented using means and standard deviations to indicate the level of agreement and variation in respondents' opinions regarding each statement.

4.2.1. Free Movement of Labour and Socio-Economic Welfare

This section presents findings on the effect of free movement of labour on socio-economic welfare in Rwanda. Respondents were asked to indicate their level of agreement with statements relating to employment

opportunities, labour mobility, skills transfer, income generation, and labour market accessibility resulting from East African Community regional integration. The results are presented in Table 2 below.

Table 2: Level of Agreement on Free Movement of Labour and Socio-Economic Welfare

Statements	N	M	SD
The number of Rwandan workers employed in other EAC member states has increased significantly.	136	3.83	.960
Remittances sent by Rwandan migrant workers positively contribute to household income and welfare.	136	4.21	.906
Free movement of labor has increased the overall labor force participation rate in Rwanda.	136	4.40	.773
Skills and knowledge gained by Rwandan workers abroad have improved productivity in the local labor market.	136	4.34	.810
Cross-border labor mobility has reduced unemployment levels in Rwanda.	136	3.98	.541
Valid N (listwise)	136		

Source: Field data, 2026 –**Key:** Mean: M, Standard Deviation: SD

Table 2. Descriptive Statistics for Free Movement of Labour (n = 136).

4.2.2. Descriptive Statistics on Socio-Economic Welfare

This section presents the findings on the level of socio-economic welfare in Rwanda as perceived by the respondents. The respondents were requested to indicate their level of agreement with statements relating to

employment, household income, access to education, access to healthcare, and overall living standards. The responses were measured using a five-point Likert scale where 5 = Strongly Agree, 4 = Agree, 3 = Neutral, 2 = Disagree, and 1 = Strongly Disagree. The findings are presented in Table 3.

Table 3: Level of Agreement on Socio-Economic Welfare

Statements	N	M	SD
Employment opportunities have improved as a result of East African Community regional integration.	136	4.39	.691

Household income has increased due to the economic opportunities created by EAC regional integration.	136	4.15	.925
Access to education has improved due to the socio-economic benefits associated with EAC regional integration.	136	4.39	.800
Access to healthcare services has improved as a result of regional integration initiatives.	136	4.05	.892
The overall standard of living of Rwandan citizens has improved because of East African Community regional integration.	136	4.12	.614
Valid N (listwise)	136	4.39	.691

Source: Field data, 2026 –**Key:** Mean: M, Standard Deviation: SD

Table 3. Descriptive Statistics for Socio-Economic Welfare (n = 136).

4.3 Correlation Analysis

Pearson correlation analysis was conducted to assess the bivariate relationship between free movement of labour and socio-economic welfare. The analysis yielded $r = 0.675$, $p < 0.01$ ($n = 136$), indicating a strong, positive and

statistically significant relationship. The coefficient falls within the conventional interpretation range of 0.60–0.80, denoting a strong positive association. Among the three integration dimensions considered, free movement of labour had the strongest bivariate relationship with socio-economic welfare. As a bivariate correlation, the result is associational rather than causal and does not on its own rule out confounding by other regional integration or country-level factors.

Table 4: Pearson Correlation Matrix

		X1	Y
Free Movement of Labour (X1)	Pearson Correlation	1	
	Sig. (2-tailed)		
	N	136	
Socio-Economic Welfare (Y)	Pearson Correlation	.675**	1
	Sig. (2-tailed)	.000	
	N	136	136

** . Correlation is significant at the 0.01 level (2-tailed).

** . Correlation is significant at the 0.01 level (2-tailed).

4.4 Regression Analysis

Multiple linear regression analysis examined free movement of labour as a predictor of socio-economic welfare while controlling for trade liberalisation and infrastructure development. The omnibus model was statistically significant ($R = 0.775$; $R^2 = 0.600$; Adjusted $R^2 = 0.591$; $F = 65.908$, $p < 0.001$), explaining 60.0% of

variance in socio-economic welfare. Within the model, free movement of labour was the strongest predictor ($\beta = 0.523$, $t = 6.799$, $p < 0.001$). Infrastructure development was also a significant predictor ($\beta = 0.382$, $t = 6.572$, $p < 0.001$), while trade liberalisation did not reach conventional statistical significance as a unique predictor ($\beta = 0.070$, $t = 0.904$, $p = 0.368$).

Table 5: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.774 ^a	.600	.591	.24388

a. Predictors: (Constant), Free Movement of Labour, Trade Liberalization, Infrastructure Development and Regional Connectivity

Table 6: Anova Results

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	11.760	3	3.920	65.908	.000 ^b
Residual	7.851	132	.059		
Total	19.611	135			

a. Dependent Variable: Socio-Economic Welfare (Y)

b. Predictors: (Constant), Free Movement of Labour

Table 6 represents ANOVA results indicate that the regression model examining the effect of free movement of labour on socio-economic welfare is statistically significant. The model produced an F-statistic of 65.908 with a significance value of $p = 0.000$, which is below the 0.05 threshold. This demonstrates that free movement of labour, together with the other regional integration variables, significantly contributes to explaining variations

in socio-economic welfare in Rwanda. The findings suggest that labour mobility within the East African Community enhances employment opportunities, income generation, and access to economic resources, thereby improving socio-economic welfare. Therefore, the null hypothesis is rejected, confirming a significant relationship between free movement of labour and socio-economic welfare.

Table 7: Regression Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
	(Constant)	-.445	.284		-1.568	.119
	Free Movement of Labour (X1)	.507	.075	.523	6.799	.000

Table 7 represent Free Movement of Labour was examined to determine its effect on socio-economic welfare in

Rwanda. The regression results indicate that Free Movement of Labour has a positive and statistically

significant influence on socio-economic welfare, with an unstandardized coefficient of $B = 0.507$, a standardized beta coefficient of $\beta = 0.523$, a t-value of 6.799, and a significance level of $p = 0.000$. Since the p-value is less than the 0.05 significance level, the effect is statistically significant. This implies that a one-unit increase in Free Movement of Labour is associated with an average increase of 0.507 units in socio-economic welfare, holding other factors constant.

4.5 Hypothesis Testing

On the basis of the regression result ($\beta = 0.523$, $p < 0.001$), the null hypothesis (H_{01}) was rejected. The data therefore provided evidence that free movement of labour has a statistically significant positive effect on socio-economic welfare in Rwanda within the EAC integration framework. The model explains welfare variance jointly with trade liberalisation and infrastructure development; the manuscript's headline statement is specifically that free movement of labour was the strongest of the three predictors.

4.6. Discussion of the findings

4.6.1. Labour Mobility and Employment

The strong correlation ($r = 0.675$) and the regression coefficient ($\beta = 0.523$) are consistent with the Harris-Todaro prediction that mobility is driven by expected wages and the probability of obtaining employment. Mutesi and Karume (2022) and Nkundwa (2023) document that movement into other EAC labour markets opens employment opportunities not available domestically, and Kamuhanda (2023) reports that Rwanda's EAC membership has been associated with growth and welfare gains. The empirical contribution of this manuscript is to show, for the Rwandan stakeholder sample, that the employment dimension remains the dominant pathway through which mobility is associated with welfare.

4.6.2. Labour Mobility, Remittances and Household Income

The descriptive finding that remittances make a meaningful contribution to household income and welfare ($M = 4.21$) is consistent with the household-income channel identified by Adeyemi and Nwosu (2021) and Nkundwa (2023). Remittances from Rwandan workers in EAC partner states evidently complement own-employment earnings in raising household consumption, education and healthcare spending. The Harris-Todaro

The standardized beta coefficient ($\beta = 0.523$) further demonstrates that Free Movement of Labour is a strong predictor of socio-economic welfare. These findings suggest that increased labour mobility within the East African Community enhances employment opportunities, income generation, skills transfer, and labour market participation, thereby improving the welfare of citizens. Therefore, the null hypothesis was rejected, confirming that Free Movement of Labour has a significant positive effect on socio-economic welfare in Rwanda.

framework supports this interpretation, as remittance flows are downstream of the same expected-wage differential that drives mobility in the first place.

4.6.3. Skills Transfer and Productivity

The high mean on productivity gains from skills gained abroad ($M = 4.34$) is consistent with the human-capital trajectory identified by Meier and Schubert (2020) in the European context and Mukasa (2018) in East Africa. The implication for Rwanda is that labour mobility can drive productivity gains in the domestic labour market both during periods of mobility abroad and on return, providing a longer-tail channel through which mobility contributes to welfare beyond immediate employment outcomes.

4.6.4 Labour Mobility, Education and Healthcare

The descriptive means on welfare indicators show that respondents perceived the strongest welfare gains in employment opportunities ($M = 4.39$) and access to education ($M = 4.39$), with access to healthcare ($M = 4.05$) also positively rated. The pathway is consistent with the income-to-consumption argument in the introduction: remittance and employment income raise the household capacity to pay for education and healthcare. As in the parent dissertation, this manuscript does not directly measure household expenditure, so the pathway is interpreted as associational rather than causally demonstrated for each welfare dimension.

4.6.5 Barriers and Policy Implementation

The lower mean on the increase in the number of Rwandan workers employed in other EAC states ($M = 3.83$) signals that mobility gains are mediated by continuing institutional barriers. The EAC Secretariat (2021) and Musoni and Nyiramahoro (2022) report that work permits, recognition of qualifications and administrative procedures continue to constrain labour mobility, and the World Bank (2022) frames policy harmonisation as the central implementation challenge. The implication for the present results is that the relatively strong statistical relationship between mobility

and welfare should be read alongside the persistence of administrative friction; the welfare gains from mobility are

5. Conclusion and Recommendation

5.1. Conclusion

The study concludes that free movement of labour has a statistically significant and positive effect on socio-economic welfare in Rwanda within the framework of East African Community regional integration. Pearson correlation ($r = 0.675$, $p < 0.01$) and the regression coefficient ($\beta = 0.523$, $p < 0.001$) jointly indicate a strong and statistically significant relationship, with free movement of labour emerging as the strongest predictor among the three regional integration dimensions included in the parent study. The descriptive pattern in Tables 2 and 3 supports the conclusion by showing that respondents acknowledge both welfare gains (employment, education, household income, living standards) and continuing institutional constraints on the depth of mobility. The cross-sectional design and focus on Rwanda mean the result is associational and contextual; extension to causal claims or to other EAC partner states would require further empirical work.

5.2 Recommendation

Based on these findings, the following recommendations were made:

1. For the Government of Rwanda, three priorities emerge. First, the Ministry of Public Service and Labour should work with EAC partner states to streamline work-permit issuance, accelerate mutual recognition of professional qualifications and improve migrant-worker protection in destination countries. Second, the Government should expand access to reliable information on regional employment opportunities for prospective migrant workers, drawing on

conditional on continued implementation of EAC labour-mobility provisions.

Rwanda's existing employment-services architecture. Third, Rwanda should deepen the integration of regional labour-market intelligence into skills-development planning so that training investments align with regional labour-market opportunities (World Bank, 2022; ILO, 2021).

2. For the EAC Secretariat, three actions are warranted. First, accelerate the operationalisation of mutual recognition arrangements across the partner states, supported by harmonised labour-mobility procedures and the convergence of social-protection frameworks where feasible. Second, address administrative bottlenecks at the border and within host-country labour administrations that continue to slow the welfare yield of the Common Market Protocol (EAC, 2010; EAC Secretariat, 2021). Third, support systematic monitoring of mobility outcomes through shared instruments and comparable labour-statistics reporting (East African Community Secretariat, 2023).
3. For the Ministry of Public Service and Labour and Rwanda's labour authorities, the empirical findings imply a focus on pre-departure orientation, monitoring of labour conditions in destination countries and accessible consular protection for Rwandan migrant workers. For Rwanda's education and skills institutions, the manuscript's results support a deliberate re-orientation of training programmes towards the skill profiles that the regional labour market actually demands. For migrant workers themselves, awareness-raising on regional labour-mobility procedures and employment rights should be prioritised, ideally through partnerships with the Ministry of Public Service and Labour and the National Bank of Rwanda (2023).

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