Predictors of migration decision in recent population mobility from Ankasha District, Amhara Regional State, Ethiopia

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Abstract

Migration has a global impact, affecting individuals, communities, and countries. Research indicates that rural migration can enhance household livelihoods by increasing remittances and alleviating land pressure in origin areas. This study aimed to identify key factors influencing migration decisions. The study examined 740 households, randomly selected from six Kebeles in Ethiopia's Ankasha district. Both migrant-sending and non-sending households were included. Binary logistic regression analysis determined the primary predictors of migration decisions. Results showed that migration decisions were predominantly collective household choices rather than individual ones. Households with heads aged 40-49 and 30-39 were respectively 75% and 55% more likely to migrate. Female-headed households had a lower likelihood of sending migrants compared to those with male heads. Larger households were more inclined to migrate than medium and small-sized households. Furthermore, medium and high-wealth-class households were less likely to send migrants than those in the lower-wealth class. In conclusion, household composition, structure, household head's age, and economic deprivation significantly influenced migration decisions in the study area. The findings underscore the importance of further comprehensive research that considers individual and societal factors to better comprehend the complexities of migration decision-making in both origin and destination contexts.

Keywords: Rural out-migration, neo-classical economics, life course approaches, Ankasha, Ethiopia.

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1. Introduction

Migration is a global phenomenon that has significant implications for individuals, communities, and nations (Mago 2018). Literature on migration in developing countries suggests that an increasing number of people worldwide are migrating to improve or secure their livelihoods. Most of these historical population mobilities are often the result of a combination of push factors (such as conflict, poverty, disaster…etc.) and pull factors, for instance job opportunities (Massey, Goldring, and Durand 1994; Stark and Bloom 1985). Ethiopia is one of the largest sources of migrants in Africa, with an estimated 839,000 Ethiopians migrating abroad in the past five years, mainly to the Middle East and Gulf countries (Ethiopia Statistics Service 2021). The main drivers of migration from Ethiopia include poverty, unemployment, and lack of opportunities, environmental degradation, political instability, and human rights violations (Ethiopia Statistics Service 2021; Mago 2018).

Migration from Ethiopia has both positive and negative effects on the migrants themselves, their families, and their communities. It enhance the income, education, health, and social status of migrants and their families, as well as contribute to the development of their origin and destination countries through their labor, remittances, skills transfer, and investment (Mago 2018; Wondimagegnhu and Zeleke 2017). On the other hand, some migration types (such as illegal migration, child migration, forced migration…etc.) can expose migrants to various risks and challenges, such as exploitation, abuse, trafficking, smuggling, discrimination, and irregular status, as well as create social and psychological problems for the migrants and their families left behind (Ethiopia Statistics Service 2021; Mago 2018).

Theoretical issues about determinants/predictors of migration are commonly explored at either the macro, meso, or the micro level. The micro-level theory focuses on individual level migration decisions. The second level of migration theory deals with macro-level one which explains human migration in aggregate trends. At the third level, there are also theories that explain issues lying between micro and macro-levels which explains migration at household and community levels. Traditional micro-economic models of migration were founded on theories relating to individual optimizing

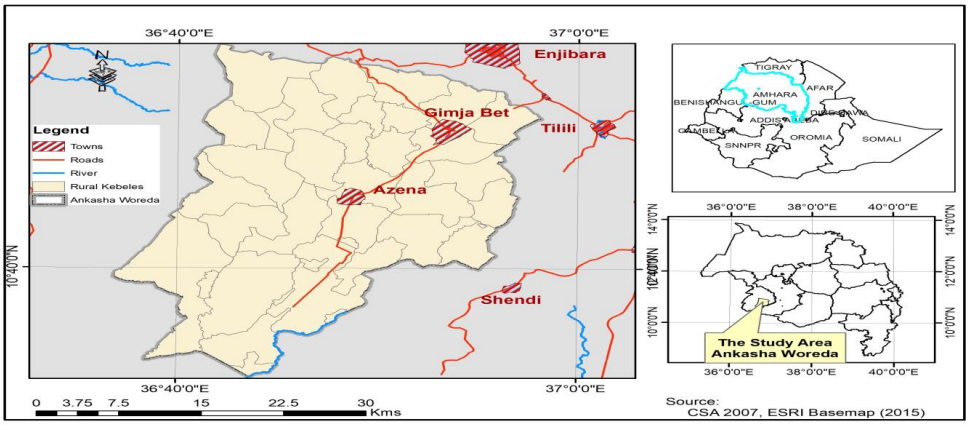
behavior. For instance, several earlier studies view rural-urban migration as a result of large differences in employment opportunities and income between rural and urban settings. Individuals are likely to migrate when the expected economic benefits exceed the economic costs. Todaro (1976)argues that people migrate from rural to urban areas if the expected wage differential is larger, even if the unemployment rate in urban destination areas is higher than origin. This entails that potential migrants calculate their expected earnings in their place of origin in comparison to various places of destination.

The "new economics of migration", views migration as a means by which the household spreads risks. In this model, households or families are seen as the principal agents in migration decision-making (Stark 1991).For example, family structure, family migrant network, and family resources are more important in determining individual migration, whereas family and kin ties to the place of origin play a more critical role in family migration (De Jong 2000; De Jong, Richter, and Isarabhakdi 1996).The new economics of migration also suggests that migration can have positive feedback effects on the origin areas through remittances, investments, social networks, and diffusion of ideas and norms (Clemens 2017).In Ethiopia, there has been massive internal migration during the last few decades. Increased population, climate change, and environmental degradation, vulnerability to food shortages (IFAD 2016; World Bank 2019), socio-demographic and political transition (Redehegn et al. 2019), recurrent drought and famine, war and political crisis (Abate 2002; Ezra 1997) are the major factors responsible for spatial mobility.

Studies on migration in Ethiopia are scarce and mainly focus on urban areas, i.e., mostly data collected at the place of destination due to the complex nature of the subject (Bundervoet et al., 2018; Kerilyn & Legass, 2021). We have limited data on migration dynamics, especially on migration decisions and impacts at the place of destination and origin ((Bundervoet, Tom. 2018). Given this, the present study opted for answering the following two questions: "*What are the key predictors of migration decisions in the study area and similar context?* And "*Is migration a household or individual decision?*" The analysis in this study was made based on primary data collected from Ankasha district, Amhara region, Ethiopia (Schewel & Asmamaw, 2021).

2. Methods

The study was conducted in Ankasha district, located in Amhara Regional State, the second most populous region of Ethiopia. Currently, it comprises one smaller town named Agaw Gimja Bet - the capital of the district and 16 rural kebeles. According to the 2007 Population and Housing Census report of Ethiopia, the district had a total population of 199,826 inhabitants. Of these, males constitute 99,285 (49.7%) and the majority of them are residing in areas designated as rural. The district is well noted for its intensive agricultural practices and cropping systems (Samson Tsegaye Mekasha, Suryabhagavan, and Gebrehiwot 2020). The bulk of the data required for this study were generated from household survey of migrant sending and non-sending households residing in the district using household survey questionnaire. The study employed cross sectional study design with qualitative and quantitative approaches. In such design, data are collected at a specific point in time in the lives of the respondents. Such design is commonly used when the primary interest is to estimate prevalence than studying cause-effect relationship.



(1) Figure 1. Map of Ankasha District

The estimation of the sample size was done using Yamane (1967) formula which yielded a total sample size of 740 households. The 740 sample households were selected using multistage sampling technique. First, six rural Kebeles were selected purposively. According to Woreda Labor and Social Affairs Office (2022), these Kebeles are identified and documented by their

intensity of out migration. Second, sub-villages (gotts) from each kebeles were identified. At the second stage, based on a complete listing of households, eligible households were selected randomly based on Population Proportion to Size (PPS), size being the number of households in the sample Kebeles.

The data collection procedure included recruitment of field workers, translation of data collection tools, training of field staff, piloting, and debriefing, and field data collection. A field manual was prepared and used for training of the field staff. We arranged a two days intensive training and 1-day pretesting sessions prior to data collection. The outcome variable of the study was migration decision coded as 1 if a household had at least one out-migrant and 0 otherwise. The exposure variables were categorized into two major groups: individual and household characteristics. The individual variables included sex of household head, age of the respondent, parental education, respondent's employment status, and marital status. The household variables were wealth, household size, land size, other source of household income.

After data collection, the collected data were subjected to cleaning, management and analysis using STATA version 17 software (StataCorp 2021). Descriptive analysis was employed to portray the socio-demographic characteristics of the respondents. The hypothesized relationship between selected explanatory variables and the outcome variable, migration decision – a binary variable, was examined using binary logistic regression (Pampel 2020). Correlations among the explanatory variables was checked using the Variance Inflation Factor (VIF). Initially, bivariate binary logistic regression was conducted to select the most promising explanatory variables for the multivariable regression analysis. Variables with a p-value<0.20 in the bivariate analysis were entered in the multivariable analysis. We used a 95% confidence interval along with a 5% cut-off values for p-values to declare significant association between predictors and the outcome variable.

3. Results

The present analysis was conducted using data obtained from survey that involved a total of 740 households. The results portray that half of the

respondents were elderlies of age 50 and above (52.6%). The survey also included participants within the age bracket of 40 to 49 years, comprising approximately three in ten respondents. Furthermore, it was noted that respondents of age less than 30 years made up almost one in twenty (4.3%). The analysis of the survey data revealed that female-headed households accounted for only 3% of the total households surveyed. This finding suggests that the area in question exhibits characteristics of a patriarchal society. At the time of the survey, a significant proportion of the respondents were in marital union (83.6%) and the remainder of them underwent marital dissolution or never married (Table 1).

The survey results revealed interesting findings about the composition of households in the area. Specifically, it was observed that half of the surveyed households fell into the category of middle-sized households, characterized by having a member count ranging from 5 to 7 individuals. This indicates that a significant proportion of the population in the area lived in households of moderate size. Furthermore, the survey also indicated that almost one in five households, specifically 19.5% of them, were classified as larger households. These larger households consisted of more than 7 members. In addition to middle-sized and larger households, the survey demonstrated that smaller household sizes were also prevalent in the area, constituting 30% of the surveyed households. Smaller households typically have fewer than 5 members (Table 1).

In terms of the highest level of educational achievement, nineteen of twenty respondents (94.7%) had a primary level of educational attainment. It is only 3.8% of the respondents that had a secondary and above level of educational attainment. It is important to note that within the surveyed group, there were also a few respondents who reported not having attended any formal schooling. A significant majority of the respondents, approximately 88.2%, relied on agriculture as the primary source of their livelihood. The high percentage of respondents whose livelihoods are connected to agriculture underscores the sector's significance in providing employment opportunities and income generation to households in the study area (Table 1)

When examining the distribution of wealth based on assets, it is observed that a significant proportion of households fall into different categories. Explicitly, 38.0% of households are categorized as having low asset-based wealth, while 33.2% of households are classified as having high asset-based wealth. The former may have limited financial resources and may face challenges in building wealth or accessing certain opportunities, however, the latter households might have greater financial stability and access to a wider range of opportunities and resources (Table 1).

Table 1. Background characteristics of respondents and migrants, Ankasha district, (N = 740)

Variables and categories	**No.**	**Percent**
Age of respondent		
<30	32	4.3
30-39	96	13.0
40-49	223	30.1
50+	389	52.6
Female headed household		
No	718	97.0
Yes	22	3.0
Current marital status of the respondent		
Not married	121	16.4
Married	619	83.6
Household size category		
<=4	220	29.7
5-7	376	50.8
8+	144	19.5
Educational level of the respondent		
None	11	1.5
Primary	701	94.7
Secondary+	28	3.8
Occupation of the respondent		
Agriculture	653	88.2
Non-Agriculture (such as trade)	41	5.5
Others	46	6.2
Asset based wealth		
Low	281	38.0
Middle	213	28.8
High	246	33.2

The gender differential analysis aimed to investigate whether there were notable variations between the background characteristics of male and female migrants. Upon analyzing the data, the study found that the gender differential in rural out-migration did not exhibit any statistically significant variation in terms of selected background characteristics. In other words, the study did not identify any significant differences between male and female migrants based on factors such as age, education level, occupation, household wealth, or access to information. However, despite the lack of significant variation in these background characteristics, the study yielded an intriguing discovery. The analysis uncovered a noteworthy association between the size of the households from which migrants originated and the gender of the migrants themselves (*P-value (Chi-square Test) = 0.038*). Specifically, female rural out-migrants more likely originate from medium and high household size households while male rural migrants are more likely to originate from small and medium household sizes (Table 2).

Table 2. Gender differential in recent rural out-migrants by household size in the study area (N = 223)

Variables and categories	Sex of migrant		P-value
	Male (%) (N = 187)	Female (%) (N = 36)	(Chi-square)
Household size category			0.038
<=4	36.9	19.4	
5-7	41.7	41.7	
8+	21.4	38.9	

The analysis also showed an assessment of the differentials of age-pattern rural out-migration. A marginally statistically significant association was witnessed between age of the household head and age of migrant. An exceedingly large proportion of the out-migrants of all age were from households whose head is an elderly. The majority of rural out-migrants possessed the advantage of having access to information about their destination areas. This access to information might allow them to make more informed decisions, plan their journey, and anticipate what to expect upon arrival. However, it is important to note that not all rural out-migrants had the same level of privilege when it came to accessing information about their destination areas. A significant number of migrants faced limitations in

obtaining such information. Such limitation is commonly observed among those who are below the age of 30 (Table 3).

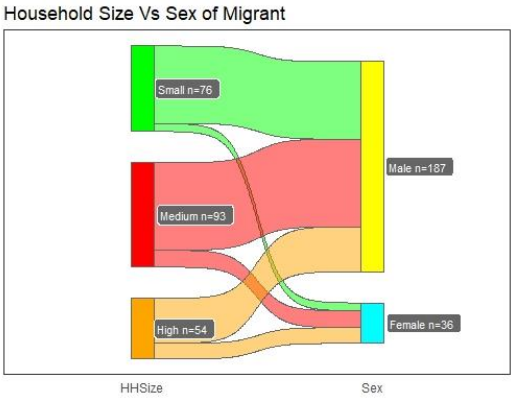
Table 3: Age patterns of recent rural out-migrants by age of household head and access to information in the study area (N = 223)

	Age category of migrant				P-value (Chi-square)
Variables and categories	**Youths (N= 67)**	**Young Adults (N= 60)**	**30s (N= 65)**	**Middle Aged (N= 31)**	
Age of household head					0.052
<30	4.6	3.4	8.8	6.5	
30-39	6.2	6.8	10.3	3.2	
40-49	24.6	20.3	4.4	32.3	
50+	64.6	69.5	76.5	58.1	
Access to information					0.001
Yes	73.8	67.8	94.1	83.9	
No	26.2	32.2	5.9	16.1	

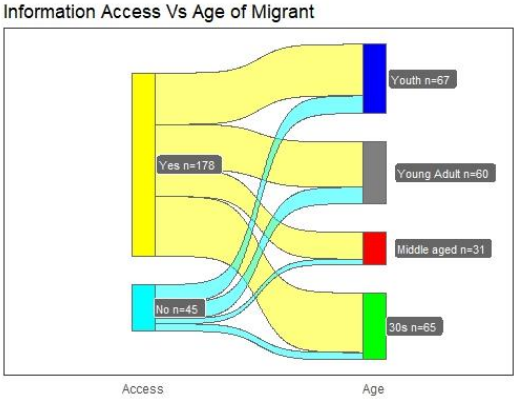
The plots presented below provide compelling evidence of a gender disparity in rural out-migration. The data clearly shows that there is a higher number of male migrants compared to females, indicating an imbalance between genders in terms of migration patterns in rural areas. Upon analyzing the sources of rural out-migration for male migrants, it becomes evident that small and medium-sized households play a significant role in contributing to the male migrant population. This implies that men from relatively smaller households are more likely to migrate from rural areas. On the other hand, the data suggests that female rural out-migrants are more commonly found in large and medium-sized households. This indicates that women from larger households are more inclined to migrate (Figure 2 (a)).

When considering the age pattern of migration and access to information of the destination area, although the great majority of recent rural out-migrants had access to information, youths and young adults were disproportionately affected by lack of information about destination area (Figure 2 (b)). Similarly, the analysis reveals that migration is more likely a household decision rather than a decision made by individuals. What is more, a

significant portion of these individual decisions were made in the absence of information about the destination area (Figure 2 (c)).



(a)



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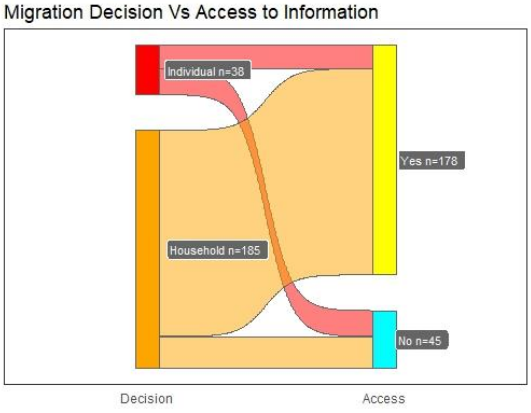

(c)

Figure 2. Household size, Migration Decision, Access to Information of Destination Area, and Background Characteristics of Migrants

The findings of the logistic regression analysis revealed that rural out-migrants tend to come from households with older heads. The study found that the odds of making the decision to out-migrate were significantly lower for households whose head fell within the age range of 40-49. The adjusted odds ratio (AOR) for this age group was 0.25, indicating a substantial reduction in the likelihood of out-migration compared to age groups of 50

(AOR =0.25 with a 95% CI (0.14 - 0.43)). Similarly, the age groups 30-39 have shown a reduced odds of sending out-migrants as compared to those in the age bracket of 50 years and above (AOR = 0.45 with a 95% CI (0.21, 0.99). The analysis also revealed that the age group of 30-39 exhibited a decreased likelihood of sending out-migrants compared to households headed by individuals aged 50 years and above. The adjusted odds ratio (AOR) for this age group was 0.45, indicating a substantial reduction in the odds of out-migration when compared to the older age bracket (Table 4).

The analysis also examined the relationship between household head gender and the likelihood of sending out-migrants. While the results did not reach a strong level of statistical significance, there was suggestive evidence indicating that female-headed households had a reduced odds of sending out-migrants compared to households with male heads (AOR = 0.25 with a 95% CI (0.06, 1.11)). The analysis also revealed an interesting pattern regarding the association between household size and the decision to out-migrate. The findings indicated that larger families had significantly higher odds of choosing to migrate compared to medium and small-sized households. Specifically, the analysis showed that the odds of deciding to migrate were three times more likely for larger families than medium sized households (AOR = 2.97 with a 95% CI (1.55, 5.68)). This suggests that as the size of the household increases, the likelihood of making the decision to migrate also increases (Table 4).

One of the significant findings from the analysis is the relationship between household wealth and the decision to out-migrate in rural areas. The results indicate that householders in the middle-class wealth range serve as a threshold that distinguishes households that send migrants from those that do not. Specifically, the odds of sending migrants were significantly reduced by 98% for households in the medium and high wealth classes compared to households in the lower wealth class (AOR = 0.02 with a 95% CIs (0.01, 0.04) for middle and (0.01, 0.03) for high class households) (Table 4).

Table 4. Results of binary logistic regression for the determinants of migration decision (N = 740)

Variables and categories	COR	p-value	AOR	p-value	95% CI	
Age of Household Head						
<30	0.90	0.778	0.78	0.662	0.26	2.36
30-39	0.30	0.000	0.45	0.048	0.21	0.99
40-49	0.32	0.000	0.25	0.000	0.14	0.43
50+[Ref]	1.00		1.00			
Female headed household						
No[Ref]	1.00		1			
Yes	0.44	0.147	0.25	0.068	0.06	1.11
Current marital status of the head						
Not in union[Ref]	1.00		1			
In union	1.24	0.317	0.98	0.951	0.52	1.86
Household size						
<=4 (Small)	1.71	0.003	1.36	0.274	0.79	2.34
5-7(Medium) [Ref]	2.14	0.000	1			
8+ (Large)	1.00		2.97	0.001	1.55	5.68
Educational level of the household head						
None	0.76	0.692	0.19	0.070	0.03	1.14
Primary[Ref]	1.00		1			
Secondary+	0.96	0.929	1.31	0.661	0.40	4.32
Occupation of the household head						
Agriculture[Ref]	1.00		1			
Non-Agriculture	1.22	0.558	1.44	0.489	0.51	4.09
Others	1.36	0.331	2.12	0.106	0.85	5.29
Wealth status						
Low[Ref]	1.00		1			
Middle	0.03	0.000	0.02	0.000	0.01	0.04
High	0.02	0.000	0.02	0.000	0.01	0.03

COR = Crude Odds Ratio, AOR = Adjusted Odds Ratio, CI = Confidence Interval
Ref = Reference Category

4. Discussion

The primary objective of the study was to investigate the factors that contribute to rural out-migration decisions. The study specifically focuses on understanding the underlying reasons for such decisions and exploring potential gender-based disparities and age related patterns in these migration decisions. The findings of the study shed light on the multifaceted nature of rural out-migration decisions and the complex interplay of factors that influence these decisions. The study identified that the decision to out-migrate involves not only an individual but also their household members. The decision to migrate is often a collective one, with multiple individuals within a household having a say and contributing to the decision-making process. Moreover, the study reported interesting findings regarding determinants of rural out-migration decision. The findings reported in this study have sparked several discussions and interpretations.

Economic resources play a crucial role in the rural households' out-migration decision. It is noted that wealthier households do not have the tendency to decide to out-migrate. Households in the middle and higher wealth classes may have better access to economic opportunities, social support networks, and resources that enable them to improve their living conditions at origin without the need to decide to migrate. Households experiencing economic deprivation were more likely to view migration as a viable strategy to escape poverty and enhance their financial well-being. The finding is consistent with several other studies reporting migration as a response to reduction of household risks such as possible food insecurity, hunger and poverty. O'Neil et al. (2016) reported that people migrate to overcome poverty, escape conflict, or cope with economic and environmental shocks.

Migration is mainly a household consideration rather than an individual preference: The analysis indicated that the decision to migrate is often a collective choice made by the entire household unit. It is thus within the household unit that individuals weigh and assess multiple factors that contribute to the decision to migrate. Migration is often accompanied by various expenses, including transportation, documentation, and potentially housing or other expenses. When considering migration, households are

confronted with the crucial decision of how to finance the costs associated with the move. These financial burdens can pose significant challenges for households, particularly those already facing economic constraints. This requires careful budgeting and prioritization of essential needs as households may seek financial assistance from family members, friends, or community networks. This finding is consistent with a study conducted in Southern Ethiopia, Dilla Town, which concluded that households which had negative attitudes towards migration had no members migrating (Yilma 2012).

Household decision making on migration implies that family and kin-networks facilitate the initial adaptation of the new arrivals to urban life through assistance in the provision of accommodation and food and even in finding job (Blair and Jong 1993). At times, the type of household decisions could vary depending on which family member migrates. In relation to this, some previous studies (Jolly, Reeves, and Piper 2005) indicated that that women may have little influence on migration decisions in the household. They added also that even where women migrate alone this is likely to be with reference to, or even determined by, the household livelihood strategy and expectations of contributions through remittances. Tadele *et al.*,(2006) argue that forms of migration are strongly determined by social and family structures. For example, a nuclear family is more likely to lead to one-way permanent migration, while extended families sponsor single-male migration leaving the rest of the family behind. Similarly, there are studies indicating the restriction on female mobility outside the household which makes circular migration a more likely option.

The present finding is in line with the new economics of migration theory which entails that migration is a major component of the theory of survival strategy (Stark 1991), in which temporary or long-term migration of people from a household are seen as a way for the household to maximize its chances for survival in an uncertain environment by diversifying its sources of income. Further, migration occurs not only to maximize expected income, but also to minimize risks and to loosen constraints (Massey et al. 1994). This occurs through diversifying its sources of income or spreading risks (Stark 1991).

On the other hand, when individuals make the decision to migrate at an individual level, it is often the case that this decision is made in the absence of comprehensive information. These may be driven by immediate concerns for well-being or the pursuit of better opportunities elsewhere, leading them to make decisions based on limited information. This part of the finding could be in line with another perspective of migration known as "life-course approach": The life-course perspective of human mobility stresses how individuals' age-related roles and obligations change through time. Under this perspective, migration is often seen as a normal, routine part of the experience of individuals (not group decision per se) as they proceed along their lifetime continuum. Departure of children from home as they attain adulthood-in order to marry, attend schools of higher learning and escape from childhood status – are frequently viewed as normal events. For instance, females may have a higher risk of experiencing a migration triggered by events such as marriage. Thus, a life-course approach emphasizes the importance of context, in determining migration behavior. While micro economic and migrant network theoretical frameworks are frequently invoked to explain individual and household level migration behavior, both have limitations in capturing the dynamics of migration decision-making.

Household dynamics shaped rural out-migration decision and patterns: Among the various demographic factors considered, household size emerged as the key determinant of rural out-migration. The study highlighted that larger households were more likely to engage in migration compared to smaller households. This suggests that the dynamics of household composition and the needs of larger families have a significant influence on the decision to migrate from rural areas.

It is also noted that female migrants more likely originate from larger households. The reasons for this trend may be that different factors are influencing female out-migration than males, by factors such as gender-specific roles, cultural norms, or specific circumstances within these larger households. O'Neil *et. al.* (2016) reported that women usually have less control over the decision to migrate than men – a decision more likely to be taken by their family. A study in Ghana indicated that while boys have more opportunities for employment and migration, parents are also very accepting

of girls' migration because girls traditionally move to their husband's family upon marriage (Hashim 2005). In other studies, more females migrated for better education, while more males migrated for business (Cerrutti and Massey 2001). Similar conclusions were made by a study conducted in Southern Ethiopia (Regassa and Yusufe 2009).

The study has both strength and limitations worth mentioning. One peculiar limitation of the study is related to its cross-sectional nature which inherently limits the possibilities of making cause-effect relationship between the exposure and the outcome variable. It is also important to note that some macro and community variables (such as distance, factors related to the place of destination etc.) were not used in the analysis due to data limitation. The interpretation of the results should be made in light of these limitations. However, given the scantly available migration studies in Ethiopia, the findings could be useful in planning, monitoring and evaluation of migration dynamics in the country. It can also be used as a spring board for other large scale studies.

5. Conclusion

The study reported that migration is mainly a household consideration that accounts various factors such as economic prospects and social networks. Further, the study identified economic deprivation of households as a major driver of the rural out-migration. Households experiencing economic hardships were more likely to make the decision to migrate in search of better opportunities and improved living conditions. The appeal of higher wages, better job prospects, and improved economic conditions in urban or more developed areas prompted these households to consider migration as a means to improve their economic situation. The study identified that migration is a household-level decision in which numerous factors such as economic situations, social networks, environmental factors, and access to resources all play a role when families consider migration. Finally, the study noted that among the demographic factors, it is only household size that played a crucial role in shaping rural out-migration decision and patterns. Large size households are migrant sending than medium and small sized households. Female migrants originate from these households than smaller ones. The

overall finding implies that more in-depth studies, constituting both micro and macro level determinants, is needed in order to understand the complex nature of migration decision making from both place of origin and destination perspectives.

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