Are there Employment Prospects for Partnered Women in Tanzania when Migrating? Evidence from the National Panel Data

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Abstract

Using the three waves of the National Panel Data (NPS) in Tanzania, this study considers the effects of family migration on labor market outcomes for the migrant partnered women. Whereas most partnered women are 'tied' migrants, results from the dynamic random effects model establish that, migrant women who were not employed in their previous places of residence are more likely to find jobs than similar non-migrant women. The result contrasts findings from prior studies, most of which were carried out in the developed world and measured employment in a strict formal manner. Given the way the employment variable was defined in the National Panel Data, it is very likely that informality in the labor market allows women to access work quite easily. The study concludes by proposing a number of areas where future researches could be undertaken – for example on whether non-migrant, non-working women choose to stay out of work and which features of informal works in developing countries (like Tanzania) facilitate more positive work experiences for paired migrants.

Introduction

Increasing waves of international, regional and internal migration around the world has drawn attention of researchers to investigate varied issues associated with migration. In terms of impacts of migration, researches have ranged; from the impact of migration to the overall economy (Clemens & Pritchett, 2008), the impact of migration on socio-economic aspects including employment and income (Mensah & O'Sullivan, 2017; Boyle, Feng & Gayle, 2009); to the examination of socioeconomic implications of migration to women in both sending and destination areas. A dominant research finding from the latter is that, in the course of family migration, women's labour market outcomes suffer in many aspects including limited access to jobs, ending up in involuntary part-time employment, and low pay experience for the ones who have successfully secured employment (Boyle et al. 1999; Lichter, 1980; Morrison & Lichter, 1988). However, a limited number of researches find the contrary, that after controlling for migration self-selection bias, the probability of employment among married women increases post family migration (Cooke and Bailey 1996; Bonney & Love, 1991). In Scotland, for instance, the study by Bonney & Love (1991) finds that the proportion of women respondents who had moved for their husband's employment and view the move as advantageous, is 12 percentage points more than the ones who considered the move as disadvantageous to their employment prospects.

Despite being an old research question, the subject of impact of migration on partnered women remains a relevant developmental issue for several reasons. First, gender and development continue to be among the dominant development agenda globally¹ and nationally². Second, Tanzania remains relatively a low ranked nation in the global gender index. The country's ranking has been on the decline from 68th (out of 149 countries) in 2017 to 71st position in 2018 (World Economic Forum, 2018), the position that is well below its peer neighbours of Uganda, Burundi, and Rwanda. In the sub-category of 'economic participation and opportunity', the country's 72nd position is lower that most of its neighbours, and represents a fall from the 69th position attained in 2017 (World Economic Forum, 2018). Third, over the past decade, results from researches carried out in Tanzania reveal some developmental impacts of migration (see for instance, Christiansen, De Weerdt, & Kanbur, 2017; Wineman & Jayne, 2016; and Beegle et al. 2011).

In general, women migrate as much as men. The 2014 Labor Force Survey in Tanzania (United Republic of Tanzania, 2014) shows that, the proportion of persons that have migrated from other places to their current places of residence is slightly higher for women (26.8 per cent) than mem (26.2 per cent). All such arguments call for greater attention on internal migration in the poverty reduction development processes. This research takes advantage of nationally-representative panel data in Tanzania covering the period 2008-2012 to respond to the research question 'Are the employment prospects for partnered women suffer when families migrate?' The focus is on wage-based employment as defined in the NPS.

The remaining sections of the report are organised as follows. The next section reviews the relevant literature followed by section 3 that highlights key characteristics of the panel data and the econometric approaches. Section 4 discusses the key findings. Sections 5 presents a number of policy recommendations and section 6 concludes and presents future research areas.

¹ See the United Nations' Sustainable Developments Goals (SDGs) and their respective targets.

² See the objectives of the Tanzania's medium-term development plan 2015-2020.

2 Literature Review

In the past few decades, important literature has emerged focusing on the 'outcomes' of migration, particularly the consequences of "family migration" on the employment status of partnered individuals. Most of such researches conclude that, following family migration women lose out in terms of declining number of working weeks (Sandell 1977; Spitze 1984), falling earnings (Sandell, 1977; Spitze, 1984), and weakened labour force participation (Lichter, 1980). Other researchers such as, Boyle et al. (1999) have gone far by revealing that, similar outcomes emerge even when women have higher status occupation than their male partner. In these researches, migration is observed as an aspect that support the man's career more often than the women's and, as a result, women are more likely to be "trailing spouses" or "tied migrants". As a result, the "cost" of migration will not be negligible for wives (Shihadeh, 1991).

Research on migration in Tanzania, particularly on the developmental impact of internal migration, is also on the rise. The internal migration in Tanzania is found to have significant developmental impact. The migration from rural areas to secondary towns makes up a much larger share of total growth and poverty reduction than moves to cities (Christiansen, De Weerdt, & Kanbur, 2017); it is attributed to the consumption growth by adding 36 percentage points to consumption growth for individuals who migrated between 1991 and 2004 (Beegle et al. 2011) and has, particularly, the rural-rural migration, produced welfare improvement with migrants drawing more readily from non-agricultural wage work (Wineman & Jayne, 2016).

These studies are however largely gender-blind failing to explicitly investigate for instance whether the benefits accruing from internal migration differ between men and women. To the best of my knowledge, this research is the first to look at the implications of internal migration in Tanzania on economic engagement of partnered women. This is important as evidences that have emerged over the last few decades show that women can no longer be made invisible in the development processes associated with migration. This study has its theoretical foundation in the neoclassical theory of migration. In such theories, migration is primarily driven by rational economic considerations of the expected relative benefits and costs, such that people migrate because they consider the various labour market opportunities available to them in different locations (e.g. between rural and urban areas) and choose the one that maximizes their expected gains from migration (Todaro & Smith, 2006).

Data description and Econometric approach

3.1 Data

Tanzania has yet to have a specialized migration related national survey. Of the several national surveys, it is only the NPS that contains some variables that can proxied information on internal migration. The study therefore utilized the nationally representative sample of household data from the first three waves of the NPS (United Republic of Tanzania, 2009, 2011, 2013). The first wave (2008-2009) had a sample of 3,265 households. The other two waves (2010-2011 and 2012-2013) consisted of a sample of 3,924 and 5,010 households respectively. The fourth wave (2014-2015) was dropped from the analysis because of substantial number of newly introduced households that did not feature in the previous waves.³ The sample used for regression analysis comprises of an unbalanced panel and includes partnered women of working age from 16 years and above. It was unbalanced for obvious reasons of attrition or households from the previous waves having moved out of scope.

To identify the 'migrants' I assigned the value of 1 to the surveyed partnered women who responded (gave reasons) to the survey question 'why did you move here?', and 0 for the ones who did not respond to the question. It was the only feasible way of capturing information on who migrated. The panel contains a dependent variable that relate to a partnered women's engaging in the wage work whether during the past 7 days or 12 months prior to the interview date. Measurement of economically engagement of the surveyed units, for instance, a week prior to the survey is not uncommon (see for instance Kaestner & Lubotsky, 2016). The focus on this variable and its interaction with the lagged dependent variable is based on the assumption that women who were out of employment at are also more likely to be out of work at time depending on the migration status. The next section that focuses on the methodological approaches explains the risk of bias coming from including a lagged dependent variable in the traditional random effect panels and how that risk is addressed. Control variables that reflect individual characteristics such as age, qualification, and marital status and the households level controls (household size, and wealth status). The latter is proxied by wall material of the house to which a partnered woman resides.

Table 1 presents the mean values of the variables hypothesized to determine the probability of being employed post-migration. All variables, other than the household size, are entered as either binary (0, 1) or categorical. The coding of the former can be interpreted as the effect on post-migration employment of a migrant having the characteristic compared to migrants in the reference group.

Table 1 shows that about 85 per cent (7,569 out of the 8,878 partnered women) were out of employment at time. About 58 per cent of the partnered women migrated with the remaining 42 per cent as non-migrants. The distribution of the statistics for the variable region shows that most of the migration have been to non-major regions (85 per cent of the partnered women). Only 15 per cent of the women moved to the major regions (Dar es Salaam, Arusha, Mbeya and Mwanza).

³ In that wave, 3,360 surveyed households (79.6 per cent) out of the total sample of 4,220 were new households.

Table 1: Descriptive statistics (all waves)

Variable	Mean
Wage-based employment	
Unemployed	0.853
Employed	0.147
Migration	
Non-migrants	0.419
Migrated	0.581
Age	
16-24yrs	0.171
25-34yrs	0.315
35-44yrs	0.253
45-54yrs	0.147
54yrs<	0.113
Qualification	
No qualification	0.975
Some qualification	0.020
University and above	0.005
Marital status	
Monogamous	0.673
Polygamous	0.173
Living together	0.154
Wealth walls	
Very poor	0.112
Somehow poor	0.403
Somehow rich	0.199
Rich	0.285
Youngest child	
No children	0.176
1-5yrs	0.531
6-10yrs	0.145
11-15yrs	0.064
15yrs<	0.086
Region	
Major regions	0.147
Others	0.854

N=8,878

Table 2 shows that women's migration is primarily driven by marriage. Specifically, about 53 per cent of the respondents partnered women were "trailing spouses", that is, they moved to follow their husbands. The rate is similar to the one in the 'between' column. The 50 per cent response rate in the 'between' column implies that 50 per cent of the respondents – in at least one of their observations stated 'marriage' as a reason for migrating. The 'within' column tells us that 85 per cent of those ever stated 'marriage' as a reason for migrating had always stated 'marriage' as a reason for migrating had always stated 'marriage' as a reason for migrating in all of the three waves. The higher the percentage in the 'within column' the higher the stability of that particular response. Marriage is thus by far a stable response than, other reasons for migrating such as 'land/plot'. Marriage as the primary reason for migration is well recognized in other researches as well (see Guzzo, 2006; Speare & Goldscheider, 1987).

		Ove	rall	Bet	ween	Within
		.No	%	.No	%	%
Work related		161	3	134	3	67
School/studies		37	1	36	1	58
Marriage		2,671	53	1,957	50	85
Other family reasons		966	19	821	21	71
Better services/housing		1,002	20	770	20	70
Land/plot		132	3	122	3	59
Others		98	2	92	2	62
	Total	5,067	100	3,932	100	77

Table 2: Reasons for migrating

n = 3,021

Marriage is distantly followed by migrating for 'better services/housing' with 20 per cent of the partnered women. Only 3 per cent migrated because of work related reasons. Despite marriage-based migration being by far the largest form of migration for partnered women in Tanzania, it varies substantially across the country. Whereas 68 per cent of those who have moved for marriage reason are residing in rural areas, the remaining 32 per cent are urban based partnered women. Furthermore, about 64 per cent of partnered women who migrated because of 'work related' are residing in urban areas. The relative stable income generating opportunities in urban areas relative to rural areas is among the potential reasons explaining location disparities (appendix 1).

Further descriptive statistics show that partnered women in urban areas are more likely to be highly educated which manifests into relatively better paying jobs relative to rural areas (appendix 1). As expected, the majority of the respondents (91 per cent) who migrated for land/plot are residing in rural areas. Land, particularly, farm land, has over the years remained as the main source of livelihood for rural residents. Appendix 1 also shows that 'better services/housing' as another reason for migrating is more likely to be mentioned by urban based residents (58 per cent) than rural based residents (42 per cent). Readers are referred to Maliti (2019) for the detailed information and analysis on the migration patterns in Tanzania and the associated socio-economic conditions.

3.2 Econometric approach

Following the framework by Boyle, Feng & Gayle (2009), this research applies the dynamic random effects probit model on the unbalanced sample of the panel data. The dynamic random effects probit model is appropriate for modeling panel data that has incorporated the state dependence factor (the lagged dependent variable in the right-hand side of equation (1)). The state dependence captures the labor market features such as job search, job offer arrival rates etc. Such features allow for the status in time t - 1 to have an explanatory power to the status at time t. That is, previous employment status is a significant determinant of the current employment status. The outcome variable is binary distinguishing those who are, or are not, engaged in wage-based employment at time t. The model is presented as:

$$y_{it}^* = \gamma y_{it-1} + x_{it}^* \beta + \varepsilon_{it} \tag{1}$$

and

$$\varepsilon_{it} = \alpha_i + u_{it}$$

The observed binary outcome variable is defined as:

$$y_{it} = 1 \text{ if } y_{it}^* > 0$$

$$y_{it} = 0$$
 if $y_{it}^* \leq 0$

The subscript indexes individuals and the subscript indexes time periods where i=1,...,N, and t=2...,T. The y_{it}^* is the unobservable propensity of the partnered woman to be engaged in wagebased employment at time t, and x_it is $K_x X_I$ a vector of time-varying explanatory variables. The composite error term $\varepsilon_i t$ consists of an idiosyncratic component u_{it} and a time-invariant unitspecific component (unobserved individual-specific random effects) α_i which $K_\alpha X_I$ is a vector. u_{it} is assumed to be normally distributed with a mean of 0, constant variance $N(o,\sigma^u_2)$. The γ measures the degree to which last period's state (being wage-based employed or unemployed) directly affects the probability of whether one is in the same state (being wage-based employed or unemployed) at time t. That is, if $\gamma \neq o$, then the outcome $y_{(it-i)}$ influences outcome in the following period t The focus is on the 'true' state dependence aspects which include factors such as job search and job offer rates arrival. Other factors associated with the true state dependence include the deterioration of existing human capital during an unemployment spell (Boyle, Feng and Gayle 2009) and the tendency for potential employers to use previous labor market history as a signal of productivity (Eliason & Storrie, 2006; Stewart, 2005; Gibbons & Katz, 1991).⁴

⁴ In the latter, potential employers will perceive an unemployed person at time as unproductive (and thus why he/she is unemployed) and will hesitate to offer employment contracts to such individuals. The person will, ultimately, remain unemployed in the following period. The reverse is true when one has an employment status at time. These facts (state dependence facts) imply a causal relationship of previous unemployment status with future unemployment status.

The component captures individual unobserved heterogeneity (e.g. one continuously missing employment because of lack of punctuality) and will mostly likely correlate with which will ultimately inflate the effects of the state dependence on current employment if they are not controlled for. Rather than the 'true' state dependence effects, such individual unobserved heterogeneity might be the reasons for some persons to be continuously unemployed. In other words, those who are unemployed in the first year of the survey are most likely to be the non-random sample of the population (because of the individual unobserved heterogeneity). As such, the persistence of unemployment will not necessarily represent the genuine probabilistic feature of the employment dynamics.

Thus, the inclusion of the lag dependent variables creates the problem of initial condition (the first year of the survey), which implicitly assumes that the initial observations are independent of the individual unobserved heterogeneity. The initial condition problem arises because the start of the observation period in a panel data set does not coincide with the start of the stochastic process that generated the employment/unemployment experiences. This study uses data from 2008-2013, and clearly 2008 is not the start of the behavioral process for some individuals. Therefore, estimation requires some assumptions about the initial observation and the unobserved heterogeneity. Arulampalam et al. (2000) highlight that in order to disentangle the effect of state-dependence from unobserved heterogeneity, the initial conditions need to be modelled instead of assumed as exogenously given, because the initial conditions may be correlated with the unobservables. The dynamic random effects probit model that this research adopts is the Heckman type (1981a, b) that controls for initial conditions and unobserved heterogeneity using an approach developed by Stewart (2006). The Stewart's approach involves the specification of a linearized reduced form equation for the initial period, where is a vector of exogenous instruments that includes, with correlating with (allowing cross-correlation between the main and initial period equations), but uncorrelated with for . The reader is referred to Stewart (2006) for further details on the dynamic random effects probit models. Following Boyle, Feng & Gayle (2009), the instrument variable incorporated in the is the household type (couples with no children, dependent or non-dependent children). Results from the simple probit models for the first and subsequent waves confirm the exogeneity of the chosen instrument. The instrument is statistically significant in the probit model for the period (i.e. it influences employment in the first period), but insignificant in probit model for the period (it does not influence employment in subsequent periods) (see the probit results from the second and third columns of table 3).

Results and Discussion

The key hypothesis is that the effects of migration on current wage-based employment (time *t*) for partnered women is different between being the previously employed and unemployed (time *t-1*). Column three of table 3 reports the signs and significance of coefficients from the dynamic random-effects probit models with employment at time as the dependent variable of interest. The dependent variable takes the value =1 if the migrant partnered woman was employed at time *t* and = 0 if the migrant was unemployed. The F-test as presented by the wild chi² is 67.06 and strongly significant (p=0.000) implying that all the coefficients (as a group) in the model are different from zero.

They key variable for this study, that is, the interaction term is negative and significant at 5 percent level. Migration variable is 'individually' statistically insignificant whereas the lagged variable is statistically significant. The latter indicates a positive state dependence in unemployment after controlling for the unobserved effects. However, the significance of the interaction variable makes the intepretation of the main effects less important. Despite the insignificance of the migration variable (as an individual variable), a post estimating test rejects the hypothesis that the migration, the lagged and the interaction variables are jointly insignificant (that none of the three has no effect on current employment) (the test result gives chi²(3) = 17.93, p=0.0005). The observed significance of the interaction term implies that that the relationship between migration on being currently employed (time t) is different between being previously employed or unemployed at time the more one was unemployed (than employed) before migration (at time t - 1). The observed finding contrasts with prior researches which found that prospects of employment for partnered women suffer postmigration (see the literature review section). Thus, research finds that migration is beneficial for women who lacked wage-based employment opportunities in the departing locations.

The are several reasons that can potentially account for the differences in findings between my findings and the previous studies most of which have been carried out in developed world. One, is the differing characteristics of the labour markets between the developed world and developing countries like Tanzania. Differently from studies coming from the developed world, which use salary-based employment indicator (mostly associated with formal employment); the wage-based employment indicator used in this study is characterised by informality, a feature that dominates labour markets in developing countries including Tanzania. This argument is closely related to Boyle, Cooke, Halfacree & Smith (2001) discussion which indicates that even if a woman is a tied migrant, the type of labour market that the family moves into may well be very buoyant and ultimately benefit her career as well. Thus, the informality of the labour market in the developing world potentially mitigates the economic and career inequality suggested by the "trailing spouse" concept (Boyle, Cooke, Halfacree and Smith 2001). Evidence of the extensive informality in the labour market in Tanzania is well articulated by the statistics from the 2014 national Integrated Labour Force Survey (ILFS) (United Republic of Tanzania, 2014). The 2014 ILFS shows that 83.4 per cent of all employed persons in Tanzania are vulnerable employees, more so for women (88.9 per cent) compared to men (78.2 per cent).

The relationship between qualification, a variable that was constructed from the survey data on education levels; and wage-based employment is consistent with theory – the coefficient is positive and well determined. The estimates indicate that migrant partnered women with some qualification gain in terms of their subsequent employment, supporting the hypothesis that human capital of partnered women, is more likely to lead to post migration employment. Marital status is also found to be correlated with employment at 1 per cent level. Those living together (rather than married coupled) are more likely to secure wage-based employment in the new environment. One possible explanation accounting for this finding is the possible high level of autonomy for the individuals 'living together' relative to the autonomy level of the ones living as 'married coupled' (Janson, 2013). If this hypothesis holds, it is then possible to speculate that the cost-benefit analysis of alternative destinations is more likely to be taken jointly for couples 'living together' than for 'married' couples whose intention to migrate mostly relies on husband's career.

	Period Period		bd	Main Model		
	Coefficient	Confidence	Coefficient	t Confidence interval	Coefficient	Confidence
	(SE)	interval	(SE)		(SE)	interval
Employment status			***1.125	1.314 – 0.935	***0.723	1.069 – 0.377
			(0.097)		(0.176)	
Employment status			**-0.257	0.503	**-0.408	-0.0050.811
X migration			(0.125)	-0.012	(0.206)	
Migration			**0.093	0.184 – 0.001	0.103	0.257 – -0.052
			(0.047)		(0.079)	
Age	0.150	0.038	0.083	0.026	0.037	0.3060.232
	(0.096)	0.338	(0.055)	0.192	(0.137)	
Qualification	***1.682	- 1.316	***1.276	1.492 – 1.061	***1.358	1.863 – 0.853
	(0.187)	2.047	(0.110)		(0.258)	
Marital status	**0.126	- 0.0307	***0.130	0.181 – 0.078	***0.134	0.232 – 0.037
	(0.048)	0.220	(0.026)		(0.050)	
Wealth status	-0.053	0.132	-0.014	0.063	0.062	0.159 – -0.035
	(0.040)	0.026	(0.025)	0.035	(0.050)	
Household type	*0.095	0.013	0.044	0.030	-0.010	0.1230.143
	(0.055)	0.204	(0.037)	0.117	(0.068)	
Household size	-0.020	0.046	***-0.032	0.047	*-0.025	0.0030.054
	(0.013)	0.006	(0.008)	-0.017	(0.014)	
Region	**0.310	- 0.060	**0.160	0.315 - 0.004	0.300	0.677 – -0.077
	(0.128)	0.561	(0.079)		(0.192)	
Constant	***-1.589	1.974	***-1.290	1.512	***-1.792	-1.247 – -2.338
	(0.197)	-1.203	(0.113)	-1.068	(0.278)	
Log likelihood	-799.118		Log likelihood	-2246.2462	Log likeli- hood	-1813.1026
(LR chi² (7	106.62		(LR chi² (10	536.98	Wald chi ² ((10	67.06
p-value	0.0000		p-value	0.0000	p-value	0.000
Pseudo R ²	0.063		Pseudo R ²	0.107	LR test of rho	
Ν	2,384		Ν	5,472	(chi²(1	2464.52
					p-value	0.000
					Ν	8,887

Table 3: Model coefficients for the women wage-based employment status

*p<0.10, ** p<0.05, *** p<0.01

Policy Recommendations

Women migrate as much as men, so migration policies and interventions must be gender-sensitive and data and information must be gender disaggregated. This implies the need for including specific objectives, targets and milestones on women in key migration policies as well as those policies that have implications on migrations. The benefits of migration will be enhanced when women can make informed choices, and when they have access to services and social networks in regions of destination. This will demand actions and cooperation within and across sectors (state entities, civil society and the private sector); including initiatives focusing on community education, awareness raising, networking and training to raise awareness of migration and its contributions to society.

Women are not a homogeneous group and therefore, policy will only amplify the empowerment effects of migration if the specific needs of different women in different regions are well understood, and policies and interventions are tailored accordingly. This could include gender training for agencies that have most contact with female migrants. Such interventions could consider introducing specific activities such as providing advice, information and support services (e.g. reproductive health services) for migrant women.

Conclusion and Areas for further research

This study presents the most comprehensive national level analysis conducted to date of the effects of family migration on the employment status of partnered women. Contrary to the findings from other contexts, migrant women who were not employed in their previous places of residence are more likely to find a job than similar non-migrant women. This finding motivates a number of guestions for future research. First, consistent with the intepretation of this finding, are non-migrant, non-working women choosing to stay out of work? and if so, why? Second, which features of the informal work in developing countries (like Tanzania) facilitate more positive work experiences for paired migrants? Third, despite having a higher probability of being employed, are the employed migrant women underemployed? Some of the migration related literature shows that high skilled migrant women often end up being underemployed and work in positions below their gualifications (see for instance, Ghosh, 2009; Ortega, 2001). Forth, what is the quality of jobs the migrant women are employed for relative to the non-migrant women in the migration destinations? Are these jobs decent? Fifth, is the changing nature of families in developing countries (rise in dual-earner couples and multi-earner households) among the determinants of being employed post-migration? These questions cannot be responded by the current information from the NPS. They demand a specialized survey on internal migration that includes a detailed module for partnered women. At the moment such database does not exist.

Appendices

	(%) Rural	(%) Urban
Work related	36	64
School/studies	46	54
Marriage	68	32
Other family reasons	59	41
Better services/housing	42	58
Land/plot	91	9
Others	59	41

Appendix 1: Location and reasons for migration

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