

Promotion of Non-traditional Agricultural Exports and their Employment consequences: case of the Cut Flower Industry in Ethiopia

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Employment opportunities for poverty alleviation.

- In developing countries, the creation of employment opportunities is a pathway out of poverty (e.g., Otsuka et al., 2009).
- The establishment of a well functioning labor market is important to help newly created employment opportunities alleviate poverty.

Local and personal networks to supplement underdeveloped labor market.

- Personal networks are important for new migrants to find jobs (Banerjee, 1984; Carrington, 1996, Munshi, 2003; Luke and Munshi, 2006; Kajisa, 2007; Yamauchi and Tanabe, 2008).
- The development process of labor markets beyond the reliance on these personal and local networks has not been sufficiently examined.

Road map

- Main hypotheses.
- Describe the cut flower industry in Ethiopia.
- Estimation strategy.
- The estimation result.
- Conclusion and future plans.

Roles of local & personal networks on the employment process.

- a. Screening hypothesis* predicts that employees more accurately know about referred workers and (initially) pay them highly.
- b. Peer-pressure hypothesis* predicts that referred workers work hard for relatively low wage to prevent introducers from losing face throughout the career.
- c. Information cost hypothesis* predicts low initial wages for referred workers as they are often unable to find jobs elsewhere.

Hypothesis 1

(Information cost hypothesis)

- The workers recruited formally in the labor market tend to be more productive, and, thus, receive higher (initial) wages than the workers hired through local and personal networks.

Development of labor market in industrial clusters.

- In industrial clusters transaction cost is reduced due to frequent interactions and enhanced information flow (Marshall, 1890).
- Potential workers expect to more likely find better jobs in industrial clusters, and firms outside industrial clusters offer wages in excess of market-clearing to attract potential workers and reduce labor turnover (Schlicht, 1978; Salop, 1979; Stiglitz, 1987).

Hypothesis 2

- Hypothesis 2: The farms located outside the industrial clusters face a relative scarcity of labor force due to the underdevelopment of the labor market, and thus they pay higher wages to a worker with a given level of productivity.

Cut flower industry in Ethiopia







Young and fast growing cut flower industry in Ethiopia.

- Table 1. Export (million USD)

	Ethiopia			Kenya
Year	Total	Coffee	Flower	Flower
2005	926	335	0	242
2006	1043	426	25	275
2007	1277	418	68	313
2008	1601	562	104	446
2009	1618	369	131	421
2010	2580	774	159	396

Rapid growth in the industry (Table 1)

- Reason 1: Favorable agro-climatic condition.
- Reason 2: Strong initiative of the government.
- Reason 3: Shift of production cites from Kenya (Ksoll, et al., 2010).
- Reason 4: Increasing agglomeration economies (Mano and Suzuki, 2011).

Labor intensive and clustering

- Labor intensive (e.g., planting, harvesting, trimming, and packaging).
- 22 out of 64 farms are clustered in one region, and the rest is scattered across different regions.

Data and descriptive analyses

- Primary survey data come from 64 out of 67 cut flower farms operating in early 2008. 320 sample workers (5 per farm) were interviewed.

Table 2. Timing of employment of sample workers by type (%).

	Locals	Relatives & friends	Outsiders
2004 or before	59	33	8
2005	40	50	10
2006	46	42	12
2007	38	47	15

Worker and Farm Characteristics at hiring (Table 3) (1)

	Locals	Relatives & friends	Outsiders
Worker char. at hiring			
Female	61.7	57.4	52.6
Age	23.0	23.1	21.9
Years of Schooling	6.97	7.35	8.92
Years of experience in the industry	0.57	0.37	0.61
# flower farms worked at	1.25	1.17	1.29
Distance from home to farm	3.49	4.97	3.88

Worker and Farm Characteristics at hiring (Table 3) (2)

	Locals	Relatives & friends	Outsiders
Wage rate (Birr/mnth)			
At hiring	173.2	182.9	276.6
Current	283.2	286.9	297.2

Estimation strategy

- Monthly wage regression model:

$$\ln(w_{ik}) = b^L D_L + b^{RF} D_{RF} + x_{ik} b^x + z_k b^z + e_{ik}$$

- On local network ($D_L = 1$) or not ($D_L = 0$).
- Invited by R&F ($D_{RF} = 1$) or not ($D_{RF} = 0$).
- x : worker's characteristics.
- z : farm's characteristics incld. a cluster dummy.
- H1 predicts that b^L and b^{RF} are both negative.
- H2 predicts that the coeff. of cluster dummy is negative.

Table 4. Initial and current wage rates

	Initial wage rate		Current wage rate	
	OLS	Farm FE	OLS	Farm FE
Locals	-0.190**	-0.231***	0.014	-0.068
Relatives&Friends	-0.189**	-0.277***	0.023	-0.039
Male	0.096***	0.090***	0.195***	0.200***
Age	0.007***	0.005*	0.003	0.002
Yrs. Schooling	0.009**	0.014***	0.024***	0.017***
Experience at hiring	0.018	0.016	0.008	0.018
#farms worked at	0.031	-0.002	0.096**	0.031
Dist. home to farm	-0.00001	-0.002	0.005	-0.004
Yrs. Operation	-0.061***	0.022	0.005	-0.004
Cluster dummy	-0.082**	---	-0.105***	---
Hired in 2005	0.228***	0.174**	-0.026	0.056
Hired in 2006	0.430***	0.289***	-0.043	0.018
Hired in 2007	0.679***	0.492***	-0.107**	-0.037

Findings and policy implications

- Local and personal networks initially played an important role in disseminating information on employment opportunities.
- Development of labor market took place particularly within the industrial clusters.
- Government can help the flower industry create more employment opportunities by promoting formation and development of industrial clusters.