Research Article

Inter-generational Mobility in Occupations of People in Rural Nepal

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Article History

Received 13 May 2019 Revised 29 October 2019 Accepted 26 November 2019

Abstract

This paper attempts to investigate the causal factors for occupational variation between father and son using Nepalese data from rural context. A well-structured questionnaire schedule was used to collect information from a total of 385 father son pairs in Gajuri rural municipality of Province No 3 in Dhading district of Nepal. Information was collected from those father and/or son, the senior son of a father who was married at the time of interview and whose father was alive. Three sets of variables were isolated as having an effect on the occupational relationships between father and son; father's characteristics, son's characteristics and household characteristics. Findings revealed that three fifths of all sons adopted occupations different than their fathers. Chi-square statistics revealed a statistically significant relationship between occupation of father and occupation of son revealing a high level of occupational persistence in between generations. Binary logistic regression revealed that sons of the fathers holding salaried job/business and trades as well as those having wage labour are more likely to catch father's occupation than the sons of farmers. Among all explanatory measures, sons' own level of education and migration experiences are powerful determinant for whether son adopts occupations different than their fathers or not.

Key words: Father, inter-generational, mobility, occupations, son

Introduction

Occupation refers to the type of work done during the reference period by the person employed (or the kind of work done previously if unemployed), irrespective of the industry or the status in employment of the person. Information on occupation provides a description of a person's job. In the present context, a job is defined as a set of tasks and duties which are carried out by or can be assigned to a person. Persons are classified by occupations through their relationship to a job. A single job may have several different work activities or duties connected with it. For instance, different agricultural activities (weeding, herding cattle, and collecting water for cattle) are simply different aspects of the same job and do not count as separate jobs (Tiwari, 1998; CBS, 2008; CBS, 2018).

Intergenerational occupational change refers to change in occupation that occur between two generations that is of father and son or family members of one generation and the next. It shows the change in occupation of a person or persons which is different than the parental generation. Occupation along with income, education, gender, race, environment, culture are some of the determinants for potential social mobility. Among these, occupation plays a vital role in determining social mobility (Chakravarty, 2013; Redddy, 2015). There are many studies, covering developed and less-developed countries that have documented the persistence of economic and social inequalities across generations based on outcome indicators such as income, earnings, occupation and level of education. In the literature on social mobility, occupation is considered a good indicator of social status, incomes and living standards (Weeden 2002; Goldthorpe and McKnight 2006; Giddens 2009; Kunst and Roskam 2010; and Lambert and Bihagen 2011 cited in Reddy & Swaminathan, n. d). A low degree of intergenerational occupational mobility implies that the advantages and disadvantages inherent in the occupational status of one generation are transmitted to the next generation. A situation of low mobility across generations may be favorable for families that are in fortunate socio-economic circumstances but in the case of families that are less fortunate, low mobility often entails social exclusion, material

and human capital impoverishment and restrictions on the opportunities and expectations that would otherwise widen their capability to make choices (Hancock *et al*. 2013).

In the underdeveloped world, the study on intergenerational occupational mobility is very few. Socio-economic analysis of intergenerational mobility in developing countries, however, remains a relatively unexplored terrain (Emran and Shilpi, 2010), even though the importance of such analysis has been duly recognized in the recent literature. Some studies have been found in case of South Asian context like India, Bangladesh and China. It is to assert that African Studies related to intergenerational changes in occupations are very scarce; can be counted on fingers. On this background, the present study tries to investigate whether father and his son is adopting the same or different kind of occupations and analyze the causal factors for such occupational mobility in the rural context of Nepal.

Literature Review and Theoretical Frameworks

The term 'generation' known as procreation is the act of producing offspring. A generation can be a stage or degree in a succession of natural descent as a grandfather, father and father's son comprise three generations. Generations are defined as cohorts or thousands of persons who share similar, but not identical, experience because they are born, live and die within a common historical period (Marvin, 1974; Devkota, 2010). It is difficult to designate a precise generation span. However, new generation may be said to appear approximately every twenty to thirty years, time enough for one generation to reproduce and rear the next one to physical and social maturity (Marvin, 1974; Devkota, 2010). They may or may not live within the same society or locale. They may or may not experience the same socio-economic environment. But their times provide a common point of reference and central to their lives. As the society is changing, the mentality of new generation is also being seen changing possibly due to change in the economic structure of society. For example, as per rapid social and economic change, young generations are particularly less beholden to their parents and family authority than they had been (Hans, 1999 cited in Devkota 2010).

Many people favor equality of opportunity as an underlying goal of society; the idea that poor children should have the same opportunities for success as rich children. Those who work hard should be able to succeed, regardless of family background. However, zero intergenerational correlation is not necessarily the optimum. In order to determine a socially optimal level of mobility, it is important to understand the underlying causes or determinants of the intergenerational correlation in earnings or education. As noted in Solon (2004), children of wealthy parents earn higher incomes in part because they invest more in human capital and have more education. As a result, observing zero intergenerational correlation would suggest no return to human capital investment, and it would be a strange market economy if higher human capital was not rewarded with higher earnings. This does, however, highlight the importance of understanding the mechanisms underlying the observed intergenerational correlations; if they are in fact due to differential human capital investment, this suggests a role for public provision or financing of education to equalize opportunities. In a similar manner, there may be genetic differences in ability that are transmitted from parent to child and that lead to intergenerational persistence in income or education. To the extent that this is the underlying cause of the intergenerational correlation in income or education, it may suggest a more limited role for policy.

Overall, differences in ability and human capital will tend to lead to an intergenerational correlation of greater than zero in any well-functioning market economy. Policies that compel employers to favor less qualified applicants in terms of employment or pay may reduce the intergenerational correlation but at a high cost to society in terms of efficiency and incentives for human capital accumulation. On the other hand, the use of connections to get jobs by the children of the wealthy when other candidates are better qualified is manifestly inefficient, and the component of the intergenerational correlation due to nepotism would be considered by most to be best eradicated (Black and Devereux, 2010).

Extending the seminal work of Becker and Tomes (1979), Solon (2004) provides an intuitive theoretical model of inter-generational mobility. According to this model, earnings levels can persist across generations because of heritable monetary and nonmonetary endowments and parental preferences for investment for the benefit of their children. The model assumes that parents derive utility from their own consumption and from the incomes of their children later in life and thus make decisions on investment in the human capital of their children based on the nature of their preferences and the returns available to human capital investment. A child's human capital is a function of parental and government investments, as well as an inherited human capital endowment, which represents the combined effect of many attributes of children influenced by nature, nurture, or both. Children are assumed to receive endowments of capital that are determined by the reputation and 'connections' of their families, the genetic constitutions of their families, and the learning, skills, goals, and other family commodities acquired through belonging to a particular family culture (Becker and Tomes, 1979 cited in Narayan et al. 2018).

Data and Methods

Gajuri rural municipality of Dhading district is the study area for the present study. This rural municipality lies along and/or uphill the Prithvi highway. Selection of the study rural municipality is purposive but having good research rationale for the proposed topic. The study site lies along the Prithvi highway uphill the Mugling Kathmandu segment of it. This area is one of the drastically changing place in the context of Nepal inserted in between two highly urbanized city centers Kathmandu and Narayangarh. The in route to the highway and the hinterlands are highly influenced by the effects of the physical connectivity, communication, media, trade, commerce, education, migration and whole gamut of modernization.

The present study was carried out taking primary data needed to fulfill the objective of the study. Two sets of instruments; questionnaire schedule and checklist were developed. A well-structured questionnaire schedule was used to collect quantitative information from the respondents. The qualitative part of the investigation on the other hand comprises of checklist. The checklist in turn were used to collect information from the key informants about the pattern, trend and causes

of occupational variability in between successive generations in the study area. The method of data was face to face interview with the purposively selected father and/or son as main respondent during June to September 2018.

According to the information obtained from the executive officer of Gajuri rural municipality, there are 560 households in Ward No 4, 1071 households in Ward No 5 and 1090 households in Ward No 6 of it (Sapkota, 2018). In an assumption that each household has a potentially one respondent father-son pair, there are 2721 father son pair which represent the maximum population size for the present study. The households which fulfill the criteria of having married eldest son with his father alive residing in Ward Nos 4, 5 and 6 of Gajuri rural municipality (former Pida VDC) is the population for this study. The criteria being the married eldest son of a household with his father alive at the time of interview. Some households might have father dead and in some other cases the eldest son might not get married or might be ineligible as a respondent due to some other reasons. Such kind of record keeping regarding married eldest son with his alive father is not maintained in any local level units in Nepal, so actual population size could not be figured out; however, 2721 represents the maximum potential population size in an assumption that each household in the rural context has married eldest son and his father is still alive.

In case of the population which is not well defined or well known for precision, a formula for a sample size of proportions can be applied (Cochran 1963; Israel 1992). By using sample size for proportion, a total of 385 father son pair were selected. This total sample size was not divided in to strata; however, it was covered all settlements with the aforementioned criteria for eligible respondents.

The investigation of outcome in this study is done using all three levels of analysis, e.g. univariate, bivariate and multivariate analytical tools. In addition to descriptive statistics of the study variables and bivariate cross tabulations, the outcome measure which is in the form of same or different occupation in between father and son is a binomial, binary logistic regression which is used as multivariate analytical tool. Five different models based on the clustering of the

explanatory measures were constructed. The results were presented as unstandardized logistic regression coefficients and odds ratios. The unstandardized logistic regression coefficients are interpreted as the increase or decrease in the logged odds of the dependent variable due to a one unit change in the independent variable (Pampel, 2000).

Result and Discussion

Descriptive statistics

Descriptive statistics include frequency, percentages, mean, standard deviation, and range among others. This statistics provides basic features of the data. In the data presented in table 1, about 40 percent of the sons adopt occupations same to their fathers; while 60 percent of them have different occupations than the father. In the parental generation, 64 percent fathers have adopted agriculture as their main occupation, while those adopting salaried job/business and trades and wage labor account for 12 percent and 23 percent respectively. The other characteristics of the father, son and household are as presented in table 1.

Table 1

Descriptive Statistics of Measures Used in the Analysis (n=385)

Variables	**Descriptive statistics**			
	Mean	**Std. Dev.**	**Minimum**	**Maximum**
Outcome Measures				
Father-son occupational mobility				
Same occupation (Ref)	0.39	0.48	0.00	1.00
Different occupation	0.60	0.48	0.00	1.00
Explanatory Measure				
Occupation of father				
Agriculture (Ref)	0.64	0.47	0.00	1.00
Salaried job/business and trades	0.12	0.32	0.00	1.00
Wage labor	0.23	0.42	0.00	1.00
Controls				
Father's characteristics				
Level of Education				
Illiterate (Ref)	0.67	0.47	0.00	1.00
Literate only	0.30	0.46	0.00	1.00
Educated	0.15	0.36	0.00	1.00
Monthly income				
No earning (Ref)	0.22	0.41	0.00	1.00

NRs. 1-5000	0.35	0.47	0.00	1.00
NRs. 5001-15000	0.21	0.40	0.00	1.00
NRs. 15001 and more	0.21	0.40	0.00	1.00
Social Network (Yes=1)	0.29	0.45	0.00	1.00
Number of sons of the father	2.77	1.43	1.00	9.00
Father-son age difference	27.97	7.34	14.00	60.00
Son's characteristics				
Level of Education				
Illiterate or literate only (Ref)	0.28	0.45	0.00	1.00
School level	0.53	0.49	0.00	1.00
Plus two and above	0.17	0.37	0.00	1.00
Migration (Yes=1)	0.57	0.49	0.00	1.00
Household characteristics				
Caste/ethnicity				
Brahmin/Chhetri/Newar (BCN) (Ref)	0.36	0.48	0.00	1.00
Janajatis	0.53	0.49	0.00	1.00
Dalits	0.09	0.29	0.00	1.00
Residential location				
Near to highway (Ref)	0.33	0.47	0.00	1.00
Places in between highway and remote locations	0.37	0.48	0.00	1.00
Remote locations	0.29	0.45	0.00	1.00
Land holding size				
0-10 ropani	0.40	0.49	0.00	1.00
11-20 ropani	0.36	0.48	0.00	1.00
21 ropani and above	0.23	0.42	0.00	1.00

1 ropani of land = 0.0508 hectares

Source: Field survey, 2018

Occupationally, the sons are 19 percent in agriculture and allied sectors, 27 percent in salaried job, 18 percent in business and trades and 36 percent are in the wage labour sector. There seems growing attraction of youths in salaried jobs; while they switch to wage labour if not salaried positions. It reveals that the youths are desperately quitting agriculture in an effort to hold regular paying jobs from other sectors. There are several independent measures which are clustered around father's, son's and household characteristics. Sixty seven percent of the fathers are illiterate, 30 percent are simply literate who can make lettered signatures while about 15 percent of them are well educated who can read or write simple sentences in Nepali language. The educated group include both having informal education and non-formal education which also include formally educated in the academic institutions. In fact, for father's generation, those having plus two and higher level education are very scanty. There is proportionate distribution of the respondents in case of not having any earning, earning monthly NRs. 5001-15000 and more than NRs. 15001 nearly equal to 21 percentage each except those having monthly income of NRs

1-5000 which is 35 percent in all. Almost 29 percent of the fathers are having social networks in the form of involvement in any local level groups, clubs, cooperatives or NGOs, while the corresponding 71 percent do not have such kind of connections. Each father in the study area is having 3 sons on an average, while there are maximum of 9 sons of a father. The mean difference in age structure between father and son is 28 years while the shortest age difference is 14 years and longest one is 60 years. There is some improvement in the level of education in son's generation depicting 28 percent is the mix of illiterate and simply literate individuals, 53 percent are having school level education up to SLC and 17 percent have plus two and above level of education. Leaving home by the son in search of study or employment opportunities is very high in the study area accounting 57 percent, the corresponding 43 percent have not left home yet. There is almost equal proportions of the respondents in terms of residential location in reference to highway ranging from 33, 37 and 29 percent respectively, from the near to highway, in between highway and remote places and remote places.. The proportion of Brahmin Chhetri Newar (BCN) is 36 percent; the Janajatis in the study area inclusive of Magar, Tamang and Chepang standalone 53 percent and 9 percent are Dalits. As for land holding size, there is lesser percentages of larger holder farmers and vice versa; revealing that majority of the respondents in the study area are small holder subsistence farmers.

Binary logistic regression

Binary logistic regression analyzes the effects of causal factors for the occupational mobility in between father and the son. The outcome measure is whether the father-son occupation are the same or different. If father and son have different occupations, it has been coded as 1 and 0 otherwise. The variables in the father, son and household characteristics are treated for mediating the effects in between occupational variables. Each category of the variables are given separate model and final model includes all the explanatory measures. The partial model (model 1 through model 4) provide effect of each category of explanatory measures as father, son and household characteristics while full model (model 5) provides aggregate effect of all explanatory measures simultaneously. The model fitting criteria and other statistics are presented at the

bottom of each model. Odds ratios are presented against each coefficient which make interpretation easier for each variable.

Table 2

Binary Logistic Regression Results Explaining Father-son Occupation Change by Father's Occupation Net of Controls (n=385).

Variables	Outcome: Father-son occupation change				
	Model 1	Model 2	Model 3	Model 4	Model 5
Explanatory Measure					
Occupation of father					
Agriculture (Ref)	-	-	-	-	
Salaried job/business and trades	-0.509(0.601)	-0.491(0.612)	-0.821(0.440)**	-0.736(0.479)**	-0.833(0.435)*
Wage labor	-2.464 (0.085) ***	-2.437(0.087)***	-2.359(0.094)***	-2.723(0.066)***	-2.675(0.069)***
Controls					
Father's characteristics					
Level of Education					
Illiterate (Ref)	-	-			-
Literate only		0.602(1.825)***			0.558(1.747)*
Educated		0.044(1.045)			-0.382(0.683)
Monthly income					
No earning (Ref)	-	-			-
NRs. 1-5000		0.370(1.448)			0.419(1.521)
NRs. 5001-15000		0.034(1.035)			-0.058(0.944)
NRs. 15001 and more		-0.473(0.623)			-0.781(0.458)*
Social Network (Yes=1)		0.490(1.632)*			0.241(1.272)
Number of sons of the father		-0.062(0.939)			-0.058(0.944)
Father-son age difference		-0.015(0.985)			-0.020(0.980)
Son's characteristics					
Level of Education					
Illiterate or literate only (Ref)		-	-		-
School level			0.496(1.642)*		0.602(1.826)*
Plus two and above			1.350(3.858)***		1.760(5.814)***
Migration (Yes=1)			0.644(1.904)**		0.644(1.905)**
Household characteristics					
Caste/ethnicity					
Brahmin/Chhetri/Newar (BCN) (Ref)				-	-
Janajatis				-0.176(0.838)	0.214(1.239)
Dalits				0.800(2.227)	1.108(3.029)
Residential location					
Near to highway (Ref)				-	-
Places in between highway and remote locations				-0.262(0.770)	-0.411(0.663)

Remote locations				-0.146(0.865)	-0.352(0.703)
Land holding size					
0-10 ropani				-	-
11-20 ropani				-0.507(0.602)*	-0.506(0.603)
21 ropani and above				-0.435(0.647)	-0.552(0.576)
Intercept	1.077	1.325(3.761)*	0.263(1.301)	1.617(5.035)***	1.157(3.182)
Model chi-square	83.875***	98.198***	106.612***	94.518***	133.589***
Degrees of freedom	2	10	5	8	19
-2log likelihood ratio	432.679	418.355	409.942	422.035	382.965
Nagelkerke R square	0.265	0.305	0.327	0.295	0.397

Note: Figures in parenthesis as odds ratios. *** p<.001; ** p<.01; * p<.05
1 ropani of land = 0.0508 hectares

Occupation of father

Occupation of father is the crucial variable for the father-son occupational mobility. In reference to the farming fathers, the binary logistic regression suggests that there is low occupational mobility of the sons in case of the father having salaried job/Business and trades as well as having wage labour. The finding revealed that compared to the fathers who are in agriculture, those sons of fathers having salaried job/Business and trades are 40 percent less likely to catch occupation different than their fathers (odds ratio 0.601). This result is statistically significant in models 3, 4 and 5 indicate that net of all controls, the result supports the initial models (model 1 and model 2). The same direction of regression coefficient and decreased odds in case of wage earning fathers, also suggest that sons are 92 percent less likely to adopt occupations different than the fathers (odds ratio 0.085). This odds ratio is consistently lower than unity in all models and statistically highly significant confirms that this finding holds true for partial as well as for full model. To sum up, father son occupational mobility is high in case of farming father whose sons are desperately trying to exit from agriculture. Even though, odds ratios are lower than unity for salaried job/Business and trades and wage labour doing fathers; there might be two different reasons behind each one of them. In case of salaried job/Business and trades, it is due to more power, wealth and resources, the son is motivated to catch the occupation of father. In case of

wage earning father, it is due to the lack of resources, wealth and income to get necessary preparation to escape from it, the sons are bound to hold the same occupation as the father.

Father's characteristics

Besides, the occupation of father, the level of education, monthly income, social network, number of son and father son age differences are the variables used as controls to examine the effect on father on occupational mobility. In reference to illiterate fathers, the sons of just literate and simply educated fathers are having higher odds of occupational mobility (odds ratio for literate father 1.825, and for educated father 1.045). The odds ratio in case of educated father in the full model rather decreases lower than unity (odds ratio 0.683). It is surprising that the sons of educated fathers are having lower occupational mobility which may be due to that the educated fathers themselves come out from traditional farming to hold non-farming occupations, thereby reducing odds of occupational change. Monthly income of father has interesting effect on the occupational mobility of the son. Higher the level of income, lesser the occupational mobility with the son. This result is in line with the human capital theory that higher earning parent have more economic resources to invest in the child's development who again leave traditional farming thereby lowering occupational mobility in between parent and child. This finding holds true in case of partial (model 2) as well as full model (model 5). This finding rather suggests that sons of higher earning fathers are motivated to catch the occupation of their fathers. In line with the theoretical expectation, the social network of father has acted positively well in promoting occupational mobility with the son. Table 2 depicts that in reference to the fathers who do not have social networks, the sons of the fathers having social networks are 63 percent more likely to catch occupations different than the fathers (odds ratio 1.632). The statistical significance of this finding disappear in the full model though.

Son's characteristics

Level of education of son and his migration experience from the usual place of residence are instrumental in creating occupational mobility with the father. In reference to illiterate or simply

literate sons, the ones who have at least school level of education are 64 percent more likely to catch occupations different than their fathers (model 3, odds ratio 1.642)). Moreover, those sons who have plus two and higher level of education, are almost four times more likely to leave parental occupation (odds ratio 3.858). In reference to the ones who do not have migration experience, the sons having migrated from parental place of residence have 90 percent more chances to catch occupations different than the fathers. This result is statistically significant as well as plausible in case of Nepalese rural context that migration offers individuals the opportunity of market place competition, new social networks and provides ground for hard work as well as helps crossing the border of narrow limitations imposed by traditional social structures.

Household characteristics

Caste/ethnicity is one of the variables creating differential outcome in most of the socio-economic issues in Nepal. The composition of occupation of people is well connected with their castes in orthodox Nepalese society. In the present study, it has been evident from model 4 of table 2 that Janajati people have lowest odds of occupational variation of the sons with their fathers. It means that Janajatis in the study area are occupationally least mobile as evidenced by the lowest odds ratios in model 4 (odds ratio 0.838). Janajatis in the study area include mostly of Tamang, Magar, Chepang which are lagging behind than other caste/ethnicities in most of the socio-economic variables. Moreover, Chepang are the highly marginalized ethnic group dependent on subsistence farming and forest products for their survival for an extended period in a year (Aryal, 2016). Dalit people have higher odds of occupational mobility than the BCN (reference group) as seen in the partial model (model 4) who have aggressively trying out to leave the parental occupations in search of more lucrative enterprises. It is in response to the restrictions imposed by lower economic resources at their command as well as stigma attached to untouchability with Dalits in rural societies. The policy for positive discriminations in favor of the Dalits people to assign special position in education and occupation might also have started showing some results.

The residential location also exerts an influence on occupational mobility in between the father and the son. In a context where socio-economic variables and developmental infrastructures change with the change in place, location is powerful determinant for the occupational mobility. In model 4 of table 2, it has been seen that farther from the highway, the lesser the odds of finding new occupations by the sons than those of their fathers. This result is not statistically significant, however the trend is consistent even in the full model. This has been due to the fact that highways and market places offer several opportunities for the youths to exit farming as well as to leave ancestral occupations, whereas the remote areas are dominated more by crop-livestock based subsistence farming systems having a limited opportunities for leaving parental occupations by the sons.

Landholding is a common resource for all the family members which is inherited to the family descent and also indicate family wealth in traditional social structure of Nepal (Bhandari, 2004). It has been witnessed from model 4 of table 2 that land holding size has posed constraint in father son occupational mobility in Nepalese rural context as suggested by several other studies. The larger the holding, the lower the odds of occupational variation of son with the father indicate that larger holders are bound to farming related enterprises. The result is consistent with Bhandari (2006) and Bhandari (2013) findings of the Chitwan Valley Family Study that larger holders are less likely to exit from agriculture. The result is not statistically significant in this study though.

Conclusion

This study has investigated the effects of different variables related to father, son and household for father-son occupational mobility in rural context. The binary logistic regression suggests that, in reference to the farming fathers, the sons of fathers doing salaried job, business and trades as well as those doing wage labour work are less likely to catch occupations different than their fathers, as compared to the sons of farmers. These findings are statistically significant suggesting that compared to the sons of farmers, the sons of non-farming fathers are more likely to pick up the parental occupation in the Nepalese rural context. Among other parental characteristics, social networks of father is statistically more meaningful in determining whether their sons can

leave father's occupations. In case of occupational mobility, the son's own level of education and migration experiences have more powerful roles in determining different occupations than the father as indicated by statistically significant odds ratios and higher R square among all cluster of explanatory measures. Household characteristics like caste/ethnicities, residential locations and landholding size do not have statistically meaningful effect in determining the father-son occupational mobility, in combination indicate positive scenario for an environment to create a meritocratic society in Nepal.

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