Assessment of Brain Drain and its Impact on the Sending Economy: 
A Case Study of Nepal  
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ABSTRACT

The research attempts to examine the factors that lead the experts to leave the country. Using 160 respondents living abroad, the study investigates the relationship between brain drain and the sending economy i.e. Nepal. The study follows descriptive, co-relational and causal comparative research design to analyze the purpose of this study. The result reveals that people leave country mainly for the purpose of education, employment and skills but what makes them settle there is employment and skills, as both of them have significant impact on sending economy at 5 per cent level of significant. As people get better job offers, they start working abroad and when they realize their skills being enhanced, their chances of getting settled in foreign land increases. This means as long as they realize self-growth in the form of better jobs and good skills, they do not plan to come back.

Key words: Employment, education, skills, working abroad, self-growth

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Introduction

The home of the biggest mountain in the world “Mount Everest” and the birthplace of Lord Buddha is the brief introduction of Nepal. Despite being enormously beautiful, having perfect climate and lots of potentials, recent period witnesses the steady inflow of skilled human resources to developed nation.

Brain drain is the migration of highly skilled manpower from the country of origin to somewhere else. In the present scenario, brain drain occurs due to the continuous increase in number of people, who seek for better opportunities either to earn more or to make a better career. The study by Docquier & Marfouk (2006) reveals that the magnitude of brain drain flow seems to be extraordinarily large in recent years; for example, in 2000 more than 50 percent of the skilled migrant stock from Africa, 41 percent from Asia and 34 percent from Latin America left their country. Addition to that brain drain rate is higher in developing countries rather than developed countries.

Brain drain is the loss of young and skilled professionals who are providing their skilled service to another country. When the national market cannot fully take care of the growing needs of educated individuals of the society, exploring international market seems to be the best option for those individuals. Nepal has been a land of knowledge. Learning foundation started to develop in ancient age. Since then Nepalese people have been following the same ancient basis for learning. Despite all these, Nepal is now in the verge to lose its potential youth every now and then. Hence, this is the study of such brain drain scenario in Nepalese context. In addition, the most common causes and impacts to brain drain on sending economy are analyzed in the study.

Related Literature

Crush (2009) defines brain drain as a process of the emigration of skilled and educated individuals from their country of origin to some other country, mainly due to economic, political and social factors. His study assess brain drain as a process in which poor countries lose valuable human capital and rich ones gain needed skills. Developing countries have to face lots of loss when the people who are supposed to bring the change leave the country for self-growth.

Brain drain is simply the emigration of highly trained or intelligent people from a particular country. It is the movement of skilled human resource in search of the improved living and better quality of life, higher income, access to technological advancement and political stability in different places worldwide. In the pursuit of higher education and economic improvement, young, well-educated, healthy individuals are most likely to migrate. In 2000 almost 175 million people, or 2.9% of the world’s population, were living outside their country of birth for more than a year (Dodani & LaPorte, 2005). In between 1960 to 2005, the number of international migrants increased from 75 million to 190 million (Docquier & Rapoport, 2012).
Companies and governments in industrialized countries recruit and retain skilled individuals from all over the world to face up to the shortage of specialized human resources. This transfer of skilled labor has consequences on the welfare and growth of sending economies that should be investigated. The concern about skilled migration arose for the first time during the late sixties when a large number of scientists and engineers moved from developing to developed countries. Such reallocation of skilled labor was seen as damaging to sending economies; on the one hand, it reduced the productivity of workers left behind, and on the other, it entailed negative fiscal consequences (Groizard & Llull, 2007).

When the skilled human resources leave their country, it is harmed in two ways. First, skilled human resource is lost with each migrant, decreasing experts of the particular profession. In the case of geographic brain drain, the country’s economy is harmed because each professional represents surplus spending units. Professionals often earn large salaries, so their departure reduces consumer spending in that country. However, Gibson & McKenzie (2012) have used data for New Zealand, Papua New Guinea and Tonga to examine the determinants of migration and return migration. Their analysis revealed that the migration decisions to be affected by preference variables such as family and lifestyle reasons and risk preferences, and not related to the income opportunities available.

Education policies and Causes of brain drain in Nepal

Shrestha et al., (2007) provide light in the fact that the higher education in Nepal was not in pace until the establishment of democracy in 1950s. After which, Tribhuvan University (TU) was established with the sole purpose of providing education all over the country. Now slowly the responsibility has been divided among several other universities. Nepalese education system is based more on theories rather than practical knowledge which is declared to be damaging for the students since they cannot perform well in the professional world, one of the reasons why people are leaving the country (Phuyal, 2018).

Education system in Nepal has not been able to set the standard education as the education abroad. This is the main reason for the increasing number of students every day. But they are not able to finance their education abroad which forces them to seek for part time job. As they start earning, they get used to the better life style abroad. Due to the degrading quality of Nepalese education sector, it has not been able to generate quality education to the international level. Despite being technologically backward and least developed country, Nepalese people still realize the positive relation between education and economic development of a country. Furthermore, the opportunities of earning while learning has been providing support to the students abroad. Hence, the number of people leaving remittance, the most promising segments of human skill are being wasted because of a lack of opportunities within Nepal to build livelihoods and to serve their communities simultaneously (Chen, 2017).
Trade and Foreign Direct Investments

After remittances, the most powerful source of external finance is trade and FDI. High skilled emigrants provide economic benefits for their home countries through their involvement in trade and foreign direct investment. Based on the experience of several countries, it has been identified that a highly skilled manpower can use the knowledge of the destination country to lower the costs of transacting across countries. High skilled IT workers are seen transferring their skills to their home countries. Even though such investment seems to be small, it is making a huge impact on the developing economies (Gibson & McKenzie, 2012).

If a country has more migration opportunities, it means that there is more investment opportunities not only for migrants but also for people who are staying in their own country. Benefits do not only come in the form of remittance, migrants are also involved in boosting FDI back to their country of origin (Sandefur, 2016). Despite the negative welfare on growth and development, brain drain is still helping the sending economy to generate gains through worker remittances, trade and FDI and human capital. Furthermore, migrant returnees seem to enhance the welfare by using their accumulated knowledge and experience in professional and entrepreneurial activities, they learned abroad in their home country. The literature suggests several potential channels through which skilled migration can affect welfare and growth in sending countries (Groizard & Llull, 2007). The brain drain in Asian countries seems to be the prevailing issues these days because of the rapid increase in the number of people leaving their country.

Theoretical Framework of the Study
The theoretical framework was designed based on the empirical foundation established by literature reviews. Three of the major causes i.e. Educational policies, Earning and Employment opportunities are taken into consideration. Addition to which, three of the major impacts i.e. Human capital, Remittance and investments are observed for this study. All of these causes and impacts are based on the present scenario of Nepal. Based on the aforementioned study, following hypotheses have been developed:

**Hypothesis of the Study**

The research took concern into a number of propositions in the form of alternative hypotheses (H1) to confirm the statistical significance of the association between different selected constructs of the study. Based on literatures, five hypotheses have been formed for the study.

H01: There is a significant relationship between educational policies and brain drain.
H02: There is a significant relationship between employment opportunities and brain drain.
H03: There is a significant relationship between earning and brain drain of the country.
H04: There is a significant relationship between contribution and brain drain.
H05: There is a significant relationship between skills and brain drain of the country.

**Research Methodology**

This study has considered both primary and secondary sources of data collection. For primary data, Quantitative approach with descriptive cross sectional study was conducted in Nepal. Purposes and objectives of the study were written at the top of the questionnaire. A self administered questionnaire was used for data collection on the basis of research objectives. The questionnaire consists of socio-demographic information in the first section and the questions related to the general information on brain drain, causes of brain drain and several impacts of brain drain in the second section.

The number of people leaving the Nepal for education varies in between 20,000 to 30,000 every year, however, it is not possible to include each one of them for the study. Hence, the analysis from Krejcie & Morgan (1970) was taken into consideration who established the maximum sample size as 285 for 1100 population; which is even supported by raosoft.com. The sample size given on this study are 169 for 300, 217 for 500 and 285 for 1100 population, thus maximum size is selected in this study based on this reference. Sample size includes skilled manpower such as staff nurse, doctors, engineers, managers or MBA/BBA graduates, who are currently living abroad. A self- administered questionnaire of 4 point Likert Scale addressed push and pull factors as: very important, moderately important, slightly important, and less important. Content validity was assured by extensive literature review and consulting experts in related field.
The study was done via online survey tool from the beginning of November 2018 to the end of January 2019. A group of candidates who fits a set of inclusion criteria was contacted and informed about research; they were invited to respond to web link (https://docs.google.com/forms) through Facebook and Emails. The collected data were automatically saved in Google drive. Furthermore two people who were fit in the criteria were interviewed for the research study. They were asked about their reasons to leave the country and the new skills they have developed overtime.

An ethical clearance was obtained prior to the study. Permission to collect the data was taken from each respondent at the beginning of questionnaire. Privacy and confidentiality of the respondents is fully maintained and they were not forced to participate. Information of the respondents is used only for the research purpose. People who are currently living abroad were included for the study. Descriptive statistics was used to calculate the average number and percentage of all the demographic variables. For secondary data, research overview was carried out as a comparative literature review, where the researcher used secondary sources as the empirical foundation.

Talking about the limitations of the study, the major limitation is an absence of the use of qualitative information to support descriptive results out in the study. Thus, the findings of the study might be based on the accuracy of the data. Similarly, there has not been conducted previous studies in this particular topic, hence the collection of information was accomplished using a set of survey questionnaires based upon the data collected from limited number of skilled people living abroad. Hence, due to time restriction, the paired sample had a sample size of 160 respondents. So, this unavailability of quantitative data in standard forms required for systematic study brings another limitation to the study. Furthermore, only three major causes and three major impacts of the brain drains are considered in the study which might limit the ability to generalize the findings.

Data Analysis

After the collection of 160 valid and presentable data, the collected questionnaires were grouped for data analysis with the help of SPSS software. Descriptive statistics was carried out for the inferential analysis. Percentage, frequency, mean and standard deviation were used to assess the factors responsible for brain drain. The variables were ranked on the basis of weighted mean value where the highest value indicates the very important and the lowest value is the least important. For Likert scale, four point scale was used with the values, 1 = Less important, 2 = Slightly important, 3 = Moderately Important and 4 = Very important. To examine the hypothesis, Multiple regression model was used which analyzed the relationship between dependent and independent variable (with 95% confidence level). For which, several statistical tools have been used.
The variables such as Education, Earning, Employment, Contribution and skills comprise different reasons as shown in the appendix 1: Questionnaire survey 2018. Various reasons to leave the country have been grouped as one single variable for the process of hypothesis testing. For example, Education is one single variable under which ‘Poor education policy is the main reason why I moved abroad’ and ‘I came here because of global recognition of quality education are two different reasons’ Likewise, Earning is one single variable for ‘Earning for me matters more than other factors before making decision where to live’ and ‘I moved here due to the low purchasing power of money in my country’. Employment is one single variable for the reasons ‘We do not have better employment opportunities to show our skills in our country’ and ‘I was offered with better job here’. Contribution is one variable for ‘I believe I am making contribution to my country in some way’, ‘I am sending money back home’ and ‘I have investments in Nepalese market’. Skill is one variable for ‘I think my skills have been improved after I moved here’ and ‘In some way, I believe that I am inspiring people of my country to improve their skills’. The mathematical figures determined from questionnaire survey 2018 have been grouped using SPSS analysis. The variables were computed from the ‘Transform’ section of SPSS, where the average of these reasons were calculated. For which first, all of these reasons under the particular variables were added and further divided by the number of reasons.

For brain drain variable, participants were asked Dichotomous question whether they are planning to come back to their country or not. It is never possible to find out the exact value of brain drain because people might move back to their country anytime in the future, so asking about their intentions/plans was the only way to make the research more realistic. The response for this dichotomous question was analyzed in the form of two values i.e. 1 = Yes and 2 = No in SPSS for data analysis.

A. Reliability Analysis

To measure the reliability of concerned tool, pilot test among 20 respondents were conducted. For establishing the reliability of the study with instrumental having scale items, Cronbach’s Alpha were run on 10 test samples of successful responses and the result is as follow.

<table>
<thead>
<tr>
<th>Cronbach’s Alpha</th>
<th>No. of Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.715</td>
<td>10</td>
</tr>
</tbody>
</table>

Source: Questionnaire survey 2018

The result in above table shows that the Cronbach’s alpha for total 10 items comes out to be 0.715 which confirmed that the instrument was fairly reliable for research administration.
B. Correlation analysis of factors causing brain drain in the context of Nepal

<table>
<thead>
<tr>
<th></th>
<th>Edu</th>
<th>Ear</th>
<th>Emp</th>
<th>Con</th>
<th>Skills</th>
</tr>
</thead>
<tbody>
<tr>
<td>Edu</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ear</td>
<td>0.24***</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Emp</td>
<td>0.143*</td>
<td>0.256***</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Con</td>
<td>0.013</td>
<td>0.135</td>
<td>0.288***</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Skills</td>
<td>0.291***</td>
<td>0.108</td>
<td>0.345***</td>
<td>0.417***</td>
<td>1</td>
</tr>
</tbody>
</table>

Source: Questionnaire survey 2018

*** Significance at 1%   **Significance at 5%   *Significance at 10%

Note: Edu, Ear, Emp, Con and Skills which represents education, earning, employment, contribution and skills respectively

Above table explains the correlation between the factors causing brain drain in the context of Nepal. Here, we can observe that skills and contribution have highest influence in each other with 0.417 correlation score. This gives us enough reasons to conclude that those who are skilled are the ones contributing more to their country. Similarly, Emp and skills have 0.345 correlation score resulting a significant influence upon each other. This provides us with the result that those who are skilled are hired for a better job.

Emp and con have moderate positive correlation with the value of 0.288 meaning that it might not be necessarily true that those who are employed for better jobs are contributing more to the nation. Some are just focused on improving their lifestyle. Similarly, Edu and Skills also have moderate positive correlation providing us with the result that skills don’t necessarily come with the education.

With the lowest positive correlation score of 0.013 between Edu and Con, we can observe that even though people are educated, it is not necessarily true that they are making more contribution to the country. Similarly earning also doesn’t have much of an impact on the contribution with the correlation score of 0.135. Finally, correlation score of Edu and Emp i.e. 0.143 says that there is no such thing as a well-educated person is hired for better job. There might actually be other factors such as skills which seem to be more important.

C. Summary Statistics

To examine the assessment on brain-drain, a set of questionnaires was asked to the respondents. Below summary table shows the responses in summarized form regarding the questionnaire attached in the Appendix 1. The table below reveals the causes of brain drain and their respective mean value along with standard deviation. In four-point Likert
Scale, all the mean values are greater than 2 indicate that given statements are the reasons for people to leave their home country.

<table>
<thead>
<tr>
<th>Statements</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poor education policy is the main reason why I moved abroad.</td>
<td>2.89</td>
<td>0.99</td>
</tr>
<tr>
<td>I came here because of global recognition of quality education.</td>
<td>3.16</td>
<td>0.96</td>
</tr>
<tr>
<td>Earning for me matters more than other factors before making decision where to live.</td>
<td>2.60</td>
<td>0.86</td>
</tr>
<tr>
<td>I moved here due to the low purchasing power of money in my country.</td>
<td>2.55</td>
<td>0.94</td>
</tr>
<tr>
<td>We do not have better employment opportunities to show our skills in our country.</td>
<td>3.04</td>
<td>1.01</td>
</tr>
<tr>
<td>I was offered with better job here.</td>
<td>2.73</td>
<td>1.06</td>
</tr>
<tr>
<td>I believe I am making contribution to my country in some way.</td>
<td>2.81</td>
<td>0.93</td>
</tr>
<tr>
<td>I am sending money back home.</td>
<td>2.73</td>
<td>1.09</td>
</tr>
<tr>
<td>I have investments in Nepalese market.</td>
<td>2.34</td>
<td>1.11</td>
</tr>
<tr>
<td>I think my skills have been improved after I moved here.</td>
<td>3.20</td>
<td>0.86</td>
</tr>
<tr>
<td>In some way, I believe that I am inspiring people of my country to improve their skills.</td>
<td>2.73</td>
<td>0.97</td>
</tr>
</tbody>
</table>

Source: Questionnaire survey 2018

This section highlights the reasons for respondents leaving the country. The mean values are computed to facilitate ranking of various reasons that people are leaving country. The result reveals that people observe skill as a most important variable responsible to make decision about where to settle. They believe that their skills are being improved in foreign country. Similarly, the result also provides light to the fact that people leave the country in search of the quality education. Certain group of people believes that they do not have better employment opportunities to show their skills in Nepal. For some people major reason to leave the country is poor education policy in their country. And finally, some people leave the country to make contribution to their country either by sending money back home or having some kind of investments in Nepalese market. So, these are the main reasons which were found to be important for the people leaving their home country. The most important reasons are ranked based on their respective mean values.

D. Hypothesis testing using Multiple Regression Model

Regression analysis is a set of statistical technique used for investigating and modeling the relationship between variables. In this research similar technique has been used to test the hypothesis. The purpose of this technique was to discover the relationship between each individual independent variable and dependent variable. Using the method of multiple
regression models, independent variables such as education, earning, employment, skills and contribution were examined. Analysis was conducted to test the unique relation between the independent variable and dependent variable by dividing the entire data into two group i.e. male and female.

**Table 4.1 Model summary**

The table reveals the result of regression of two different groups of people i.e. male and female on brain drain. The data comprises the relationship between group of independent variables i.e. education, earning, employment, contribution and skills with the dependent variable i.e. brain drain. The data is determined from 160 respondents currently living abroad, for which regression analysis from SPSS software was done for the data analysis.

**Gender based hypothesis testing**

<table>
<thead>
<tr>
<th>Groups</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>R</td>
<td>0.270</td>
<td>0.372</td>
</tr>
<tr>
<td>R square</td>
<td>0.073</td>
<td>0.139</td>
</tr>
<tr>
<td>Adjusted R square</td>
<td>0.042</td>
<td>0.103</td>
</tr>
<tr>
<td>Standard error of the estimate</td>
<td>0.49</td>
<td>0.47</td>
</tr>
<tr>
<td>R square change</td>
<td>0.073</td>
<td>0.065</td>
</tr>
<tr>
<td>F change</td>
<td>2.337</td>
<td>11.171</td>
</tr>
<tr>
<td>Df1</td>
<td>5</td>
<td>1</td>
</tr>
<tr>
<td>Df2</td>
<td>148</td>
<td>147</td>
</tr>
<tr>
<td>Significance F change</td>
<td>0.045*</td>
<td>0.001***</td>
</tr>
</tbody>
</table>

*P- values at ** 5% significant level for male and *** 1% level of significance for female*  
*Source: Questionnaire survey 2018*

Table 4.1 displays the model summary for the set of independent variables (education, earning, employment, contribution and skills) and dependent variable brain drain. R square is always between 0% and 100%. 0% means the model explains none of the variability of the response data around its mean whereas 100% means the model explains all of the variability around its mean. R-square, in this scenario, are 7.3 per cent and 13.9 per cent while running the regression based on gender wise relationship. This value indicates the variation in dependent variable is explained by education, earning, employment, contribution and skills. Similarly, F test is used to test the significance of the model where the value comes as 2.337 for male and 11.171 for females. Observing the results and the significance test in this table, both of the groups i.e. male and female seems to have significant value less than 0.05 so we accept the alternative hypothesis which means that there is a significant impact when the variables are taken as a group.
**Table 4.2 ANOVA table**

The table displays the ANOVA table for the independent variables used in this study. The data is obtained from the survey questionnaire of 2019 and sample contains 160 respondents of Nepalese living abroad. Table reports sig. and F-value of two models of regression based on moderate variables male and female.

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>2.794</td>
<td>5</td>
<td>.559</td>
<td>2.337</td>
<td>.045b</td>
</tr>
<tr>
<td>1 Residual</td>
<td>35.388</td>
<td>148</td>
<td>.239</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>38.182</td>
<td>153</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Regression</td>
<td>5.293</td>
<td>6</td>
<td>.882 3</td>
<td>.943</td>
<td>.001c</td>
</tr>
<tr>
<td>2 Residual</td>
<td>32.889</td>
<td>147</td>
<td>.224</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>38.182</td>
<td>153</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Dependent Variable: BD  
b. Predictors: (Constant), Skill, Ear, Edu, Emp, Con  
c. Predictors: (Constant), Skill, Ear, Edu, Emp, Con, @2#_Gender

Source: Questionnaire survey 2018

**Note:** @2#_Gender indicates gender i.e. male and female. The hypothesis was rather a gender based analysis. The relationship between all of the predictors (independent variables) to the dependent variable was tested individually for each of the two groups, for which group 1 is male and group 2 is female.

The ANOVA table for the regression analysis indicates whether the model is significant and valid or not. Residual value is the difference between the observed value and predicted value of the dependent variable. The model is significant, if the ‘sig.’ column in the table is less than the level of significance. Table 4.4.2 displays the results that there is a significant relationship between brain drain and the variables for males at the significance level 5% and for females at the significance level 1%.

**Table 4.3 Coefficient table**

The table is concerned with the data comprises the survey report of Nepalese people leaving abroad and it presents regression result of brain drain. The survey was conducted in 2019 and sample contains of 160 respondents. The explanatory variables in this study are education, earnings, employment, contribution and skill and the dependent variable is brain drain. Hypotheses developed in section 1.6 are being tested through this analysis.
### Coefficients

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>T</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1.350</td>
<td>.225</td>
<td>-.023</td>
<td>5.992</td>
</tr>
<tr>
<td></td>
<td>.031</td>
<td>.026</td>
<td>.109</td>
<td>1.274</td>
</tr>
<tr>
<td></td>
<td>-.023</td>
<td>.025</td>
<td>-.075</td>
<td>-.888</td>
</tr>
<tr>
<td></td>
<td>.054</td>
<td>.017</td>
<td>.158</td>
<td>1.756</td>
</tr>
<tr>
<td></td>
<td>-.088</td>
<td>.033</td>
<td>-.253</td>
<td>-2.670</td>
</tr>
<tr>
<td></td>
<td>1.063</td>
<td>.234</td>
<td>-.028</td>
<td>4.542</td>
</tr>
<tr>
<td></td>
<td>.031</td>
<td>.024</td>
<td>.114</td>
<td>1.373</td>
</tr>
<tr>
<td></td>
<td>-.028</td>
<td>.025</td>
<td>-.091</td>
<td>-1.118</td>
</tr>
<tr>
<td></td>
<td>.054</td>
<td>.024</td>
<td>.192</td>
<td>2.266</td>
</tr>
<tr>
<td></td>
<td>.024</td>
<td>.018</td>
<td>.120</td>
<td>1.364</td>
</tr>
<tr>
<td></td>
<td>-.092</td>
<td>.032</td>
<td>-.265</td>
<td>-2.882</td>
</tr>
<tr>
<td></td>
<td>.259</td>
<td>.078</td>
<td>.260</td>
<td>3.342</td>
</tr>
</tbody>
</table>

Source: Questionnaire survey 2018

**a. Dependent variable BD**

Note: @2#_Gender indicates gender i.e. male and female. The hypothesis was rather a gender based analysis. The relationship between all of the predictors (independent variables) to the dependent variable was tested individually for each of the two groups, for which group 1 is male and group 2 is female.

**Regression equations for the analysis:**

**Regression equation for group 1 (Male):**

\[
\text{Brain Drain (Y)} = a + b1x1 + b2x2 + b3x3 + b4x4 + b5x5
\]

\[
= 1.350 + 0.031 \times \text{education} - 0.023 \times \text{earning} + 0.54 \times \text{employment} + 0.32 \times \text{contribution} + 0.088 \times \text{skill}
\]

**Regression equation for group 2 (Female):**

\[
\text{Brain Drain (Y)} = a + b1x1 + b2x2 + b3x3 + b4x4 + b5x5
\]

\[
= 1.063 + 0.0328 \times \text{education} - 0.028 \times \text{earning} + 0.054 \times \text{employment} + 0.024 \times \text{contribution} - 0.092 \times \text{skills}
\]

As displayed in table 4.3, the beta weight and statistical significance were analyzed and examined. However, the beta coefficients are significant for employment with the significance at 0.031 for the beta weights, only two out of five independent variables showed significance. Furthermore,
it indicates those of education, employment and contribution have positive impact whereas earning and skills have negative impact on brain drain according to the beta value. The p-values of each regression coefficients are provided to have the information regarding significance of the individual regression coefficients in Multiple Linear Regression Model.

**Determinants of brain drain**

The regression result of education, earnings, employment, contribution and skill on brain drain are presented in table 4.4.3. The models of regressions are presented based on male and female group. The coefficients values are displayed in the table along with their respective t-statistics and p-values.

The high value of t-statistics and lower value of p indicates that coefficients are with a high degree of precision. Lower value of t-statistics and higher value of p (more than 0.05) indicate that there is no significant difference between dependent and independent variables. Three variables out of five have been found to be insignificant to brain drain.

**E. Charts and Figures**

1. **The relationship between Brain drain and Education**

   ![Chart showing the relationship between brain drain and education](chart4)

   **Source: Questionnaire survey 2018**

   Chart 4: Chart showing the relationship between brain drain and education

   **Index**

   Yes – I do not plan to go back to my country   No – I plan to go back to my country

   This chart displays that people with lower level of educational degree tends to stay abroad in comparison to people with higher level of educational degree. When the respondents were asked whether they are intending to go back to Nepal, people with their PHD degree responded quite positively. So, we can say that higher the degree, high was the intention of going back.
2. Contribution made by people to their country

G. I believe I am making contribution in some way.

24.5% believe that they are making contribution to their country and 41.5% believe that they are often making contribution to their country. Whereas 23.9% and 10.1% believe they don't contribute much to the country.

3. Contribution through Investment in Nepalese market

I. I have investments in Nepalese market.

Similarly, 18.5% of the people regularly invest in Nepalese market and 28.7% often invest in Nepalese market. Whereas 22.3% slightly and 30.6% don't invest at all in Nepalese market.
4. Contribution through Remittance

H. I am sending money back home.

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1 – Not really                 2 – Rarely                        3 – Often                  4 – Always

Almost 62% of the people participated in survey are sending money back home, whereas 38% are not the part of remittance.

5. Chart showing contribution made by inspiring people back home

K. In some way, I believe that I am inspiring people of my country to improve their skills.

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1 – No                           2 – Not much                       3 – Maybe sometimes         4 – I do

In regard of the inspiring people of their home country, 25.3% strongly and 36.1% moderately believe that they are inspiring people living back home whereas 26.6% slightly and 12% don’t believe at all about their inspiration to their people back home.
Conclusion and Findings

With historically diverse and culturally heterogeneous group of people, Nepal is a country with patriotic people. Keeping aside this attachment, due to the lack of opportunities the number of skilled people leaving the country is increasing day by day. The migration impacts not only the life of a Nepalese currently living abroad but also the growth of small and developing country like Nepal. The result reveals that majority of Nepalese leave their country in search of better education opportunity. But after getting used to the better lifestyle abroad, people might not want to come back to their home country. Similarly, improved skills and better jobs have significant impact on brain drain. Hence, all three factors i.e. education, earning and employment, at different points, are the reasons why people are leaving their country to get settled somewhere else. Therefore, in developing countries, all of these reasons somehow impact on people’s decision regarding where to live their life.

Concluding the analysis and empirical results of the study, this assessment of brain drain using SPSS software on 160 samples, confirms that people might have different reasons to leave the country. The reasons might be education, employment and skills but the primary reasons for them to get settle there is employment. Employment has a significant impact on brain drain. When people are hired for better job in foreign country, no doubt it carries all the values. There is good earning, self-respect, self-growth and success ahead, basically everything a person wants in a foreign country. Based on which people decide not to go back to their home country. As long as people get good jobs and opportunities in foreign land they do not prefer to come back to Nepal. Furthermore, the study indicates, if people feel that their skills have been enhanced overtime, they eventually plan to stick in foreign country. Because these newly developed skills can be helpful to them to make better living, they expect good opportunities afterwards, which come up with lots of benefits. As long as there are benefits to the people, they live abroad.

Since primary reason for people to leave the country is education, we can blame the poor educational policy as a factor responsible for brain drain. Youth these days only perceives the gains they are getting in return. This means as long as they realize self-growth in the form of better jobs and good skills, they continue living there. So, the results based on this study concludes that other factors like earning and contribution doesn't seem to matter much to people while deciding where to live.

References


Bhattarai, K. (2009). Problems and prospects of Nepalese students in UK: Brain drain, immigration or global network. Business School, University of Hull Cottingham Road, HU67RX.


