

The Impact of Demographic Factors on Tax Compliance: Evidence from Hetauda

BHOJRAJ DHAKAL | KRISHNA PRASAD PAUDEL | PABITRA PATHAK | RAJAN NEUPANE

*Author affiliations can be found in the back matter of this article

CORRESPONDING AUTHOR

Bhojraj Dhakal

Makawanpur Multiple Campus, Hetauda

dbhojraj17@gmail.com

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ABSTRACT

This article explores the impact of demographic factors on tax compliance behavior in Nepal collected from Hetauda Sub- Metropolitan City. The objective of this study is to investigate the impact of demographic factors on tax compliance. Focus of this study is to investigate what actually happens in the economy with the low tax compliance ratio in Nepal, which results in unexpected low tax revenue day by day. To this end, the author used quantitative research approach only. The target population of the study was taxpayers of the Hetauda city categorized in both private and public job and business. The primary data were collected through survey questionnaire from 300 selected samples to meet the target population. Binary logistic regression model and Pearson Correlation Matrix were employed to analyse the data through SPSS and EViews. The result of this study has shown the demographic factors incorporated with attitude variables under four different model. The impact of the demographic factors on tax compliance is mixed in nature. Some demographic factors are inversely related to tax compliance and vice-versa. A low tax compliance problem is related to low tax revenue of a particular country. The beauty of this study is to bridge the knowledge gap of emerging issue of the tax compliance behavior in several ways.

1. INTRODUCTION

Tax compliance is an emerging issue in the developing countries (Chau & Leung, 2009). Tax compliance research became consequential in the 1970s as countries began to face rapidly growing deficits due to significant increase in the role of government in the public sector. Tax negative compliance attitude is burning issue in developing countries like Nepal,

which reduces revenue generation capability as planned to be collected by the government that ultimately leads to budget deficit. Nepal ranks fifth in the SAARC region of a tax-compliant country. Tax compliance matter is a behavioral issue of the tax payers; it is either a taxpayer pays voluntarily or coerced to pay (Fagbeni & Abogun, 2015). Tax compliance is a solemn and critical matter in the case of emerging

countries like Nepal. Tax resources play a dominant role to control Nepali economy. Tax is defined as 'a compulsory payment, imposed by government authority, on income, expenditure, profit, or capital assets, for which the taxpayer has no expectation to direct specific in return (Lymer and Oats, 2009). Tax is not similar to buying goods by money and getting money by goods.

Nepal has insufficient resources to meet public expenditure. In 2022/23, the government announced the budget NPR 1.793 trillion and collected 1.1408 from tax sources (MoF, 2022/23). Based on the total tax revenue, tax has been the biggest contributor in the government budget in Nepal. But the amount of revenue to be generated by the government from taxes for its expenditure program depends on the willingness of the taxpayers to comply with tax laws of a country. Thus, the role of tax in supporting the economy of a country is important. In Nepali context, taxes collected by the government can be divided into two broad heading under direct and indirect taxes.

Tax negative compliance attitude is a burning issue in developing countries, which reduces revenue generation capability to amount, planned to be collected and leads to budget deficit. Most citizens of the country become unwilling to pay their tax obligation in the correct amount, time and place due to presence of negative attitude. Tax negative compliance attitude is individuals' failure to comply with their tax commitment. Das Gupta and Chattopadhyay (2002) stated that compliance attitude with tax laws involves true reporting of the taxable income; correct computation of the tax liabilities; timely filling of tax returns and timely payment of the amount owing as tax obligation. The researcher has to investigate the tax compliance behavior of the taxpayers. The central focal point of this study was to conclude based on research objectives. In order to investigate taxpayers' behaviors of tax compliance, one needs to find the impact of demographic factors on tax compliance.

1.1 SPECIFIC STUDY OBJECTIVES

The aim of the study is to carry out an examination of the influence of demographic factors on taxpayer compliance in Nepal. The specific objectives of the study are:

- i. To investigate the impact of demographic factors on taxpayer compliance in Nepal
- ii. To recommend the impact of demographic factors on taxpayer compliance for implementation in Nepal

1.2 HYPOTHESIS

Hypothesis 1:

Demographic factors have no impact on tax compliance behavior of taxpayers.

1.3 REVIEW OF LITERATURE

There are few researches done on the determinants of tax compliance based on demographic factors and related issues in Nepal. Fischer et al., (1992) has incorporated a comprehensive model into four major headings including demographic factors such as age, gender and education that affect tax compliance. He further found an inverse relationship between demographic and tax compliance behavior of taxpayers. There are many economic factors relevant to the study of tax compliance including level of the income of the taxpayers (Kinsey, 1992). Riahi-Belkaoui (2004) found that out of seventeen variables verified across 45 countries including the variables age, sex, education, equality, culture and religion that effect on tax compliance. Generally, the study found mixed result of demographic factors on tax compliance. Franzoni (2008) studied some survey outcomes and suggested that significant determinants of demographic characteristics. Experimental studies pointed out that younger persons are less compliant. And, females are much more amenable than males (Alm, 1999; Andreoni et al., 1998). There is also literature supporting direct and positive relationship between educational level and taxpayer compliance (Bhatia, 1976). Niway and Wondwossen (2016) suggested that gender

has no significant impact on compliance attitude of taxpayers and also suggested that education level is directly linked to a likelihood of compliance attitude. Educated taxpayers are more compliant than uneducated taxpayers.

2. METHODOLOGY

This study believes in post-positivist view because there is a single reality according to survey findings in social phenomena (Bryman, 2016). The ontology of the research is that people have to pay taxes and they generally feel a negative compliance. The way of gaining its reality outcome will be both objectivists and value-free methods. The researcher did not feel that there was a value in the researcher ‘subjectivity concern.

This research study incorporated quantitative survey method to obtain the impact of demographic factors on tax compliance their relation with tax compliance behavior in Hetauda. Quantitative research approach involving numerical or statistical data and emphasis is on the quantifiable observations of the research which is mainly objective.

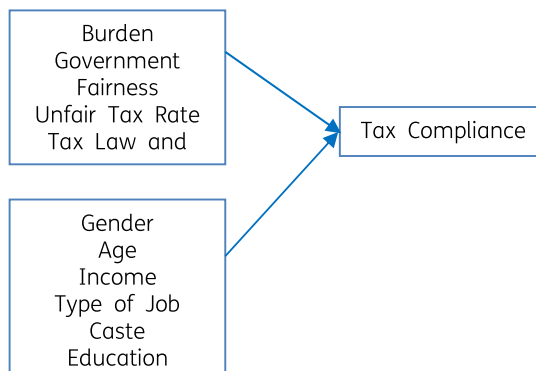
The researcher focused on the collection of first-hand primary data from the research area of Hetauda Sub-Metropolitan City. To collect primary data structured questionnaires and direct personal interview were used. The total population of this research is tax payers selected from Hetauda. The sample size of this study was 300 among 1300 taxpayers, they were enlisted from job holders of private and public sectors and businesspeople. The respondents are randomly chosen and proportionate stratified random sampling was used to cover the sample size among different strata because it gives more reliable and detailed information about the sample through a structured questionnaire (Etikan, 2017).

The validity of the scales was ensured by conducting a pilot study. Cronbach’s Alpha- test was applied to find the validity of the questionnaire but it generally could be used for the Likert scale.

The pilot study was conducted on 10 percent of the total sample.

2.1 CONCEPTUAL FRAMEWORK

Independent variable and Dependent variable Figure:



Source: Own construct based on the theory of planned behavior

This article maintains that behaviors of individuals inside the society are under the influence of several factors including demographic originate from certain reasons and emerge in a planned way which is from planned behavior side (Erten, 2002). The variable in the rectangles at the right-hand side (tax compliance attitude) is dependent variable and the other variables (attitude and demographic factors) that listed in the rectangles surrounding the left-hand side are independent variables.

This model examines the relationship between independent variables of attitude variables such as burden of tax, government fairness, understanding of tax law and rule and unfair tax rate with demographic factors like age, income, cast, types of job, education, gender and dependent variables (tax compliance).

Fiscal psychology and social psychology models resolve that tax compliance behavior is determined by non-economic factors such as socio-demographics, socioeconomic, attitudes and perceptions (e.g. Kinsey, 1984). Accordingly, the researcher has developed the model by driving logit function from odds ratio and incorporated six explanatory variables which disclosed as follows. COM is Function of [GEND, AGE, EDU, TOJ, CAST, and LINC]. Hence, the researcher has developed

the logistic regression model to achieve the objectives of this study. Logistic regression is one of binary choice models (or dichotomous models), which is designed to model the ‘choice’ between two discrete alternatives.

$$TC_i = \alpha + \beta_1 BUR_i + \beta_2 AGE_i + \beta_3 LINC_i + \beta_4 CAST_i + \beta_5 TOJ_i + \beta_6 EDU_i + \beta_7 GEND_i + \epsilon_i$$

Table 1: Data analysis of demographic factors

Variables	Model 1 (BUR)	Model 2 (UTR)	Model 3 (GF)	Model 4 (TRL)
-	-0.29(0.00)	-0.06	-1.3(0.00)	0.6(0.02)
GEND	0.04	0.04	0.02	0.013
AGE	0.01	0.01	0.01	0.01
LINC	0.7	0.7	0.8	0.8
EDU	-0.006	-0.04	-0.08	-0.07
TOJ	-0.03	-0.15	-0.2	-0.012
CAST	0.01	0.04	0.02	0.03
Constant	0.8	0.8	0.8	0.8

Note: BDN = Burden, UTR = Unfair Tax Rate, GF = Government Fairness, TRL = Tax Law and Rule, GEND = Gender of the respondent, AGE = Age of the respondent, LINC = Log income, EDU = Education status, TOJ = Job type of the respondent, CAST = Cast of the respondent, C = constant. The values in the parentheses represent p-values.

3.1 FIRST MODEL

The first case shows the impact of demographic factors with burden on tax compliance. The coefficient of income variable was a positive sign and the relation does exist 0.05 level of significance. In the same way, the probability of being positive and very strong significant relationship with compliance attitude was based on its magnitude. However, age did not influence tax compliance since the relation was not significant. The relationship between the level of education and tax compliance was negatively correlated between each other. It can be concluded that gender had a significant effect on taxpayer compliance while education level did not have a significant effect on taxpayer, but cast did not affect tax compliance. Type of job varies inversely in association with tax compliance. This result is consistent in all

3. DATA ANALYSIS AND FINDING

After accomplishment of data collection procedure, it should have been classified as per each variable, the demographic factors were coded to be measured quantitatively. In this research data, were analyzed by inferential statistics (logistic regression) by the help of EViews. The data analysis of demographic factors with one prime variable such as burden, unfair tax, government fairness and tax law and rule on tax compliance summarized in single table under different models.

models of different attitude variables combined with demographic factors. The hypothesis Ho1 is accepted and rejected in different cases. Other controlled variables rarely seemed to be significant under different models.

3.2 SECOND MODEL

The second case incorporated the impact of demographic factors with government fairness on tax compliance. The coefficient of income was a positive sign. Similarly, age and education were insignificant. Types of job has negative sign. Cast did not have a significant effect on tax compliance. Data revealed that the similar findings obtained in all model. All demographic variables were significant at more than 0.05 levels, and income and age are significant with a p-value of 1 percentage. The results vary depending on

attitude variable with demographic factors. Relation does or does not exist in all models does not matter because demographic factors affect tax compliance behavior of taxpayers. The previous finding of the impact of demographic factors on tax compliance is not identical.

3.3 THIRD MODEL

The third model incorporated the impact of demographic factors with understanding tax law and rules on tax compliance. The coefficient of income variable was a positive sign and the relation does exist 0.05 level of significant. Jackson and Milliron (1986) pointed out that income level has an assorted and unclear effect on compliance; great income earners are possible to be more acquiescent rather than lesser income earners, as pinpointed by Wearing and Heady (1997) and Torgler (2007). However, age did not influence tax compliance since the relation was not significant. The type of job was negatively associated with tax compliance reflecting with its negative coefficient. Similarly, the relationship between the level of education and tax compliance is negatively correlated between each other. It revealed that there was no significant difference between male and female taxpayers on tax compliance. The positive magnitude proved this result, but the result was not significant in which the p-value is less than 0.05. Fredick and Peter (2019), Wearing and Heady (1997), and Torgler (2007) concluded that the many socio-demographic variables were insignificant.

3.4 LAST MODEL

The Last model incorporated the impact of demographic variables with tax laws and rule on tax compliance. The coefficient of income variable was a positive sign and the relation does exist 0.05 level of significant. However, age did not influence tax compliance since the relation was not significant. The type of job and education were negatively associated with tax compliance with its negative coefficient. It can be concluded that gender had a significant effect on taxpayer compliance,

while cast did not have a significant effect on taxpayer.

4. CONCLUSION

Control variables such as sex, education, type of job, income, cast, and age were also significant demographic variables that affect tax compliance. Gender had a substantial effect on past levy compliance performance. Sex and tax compliance have a negative relationship with each other. It was probable that females following directions more; being less prepared to take jeopardy, or having a greater sense of people remained a significant element of tax acquiescence behavior in this study.

5. IMPLICATION

In order to increase the rate of positive compliance among taxpayers, a range of prevention measures policies related to the demographic factors on tax compliance have been formulated and implemented by the tax authority. The first implication is that the tax compliance strategies should be used as a comprehensive package that includes demographic factors on tax compliance. The study may enrich the literature on tax compliance upon which future researchers shall conduct further research. Research on tax compliance in Nepal is very limited. It adds knowledge in the field of taxation. It can be said that the social norms against tax compliance can be established and implemented. The findings of this research study will be useful to the public authority and the government tax agencies to improve tax policy in the nation based on demographic factors.

AUTHOR AFFILIATIONS

Bhojraj Dhakal

Lecturer of Economics
Makawanpur Multiple Campus

Krishna Prasad Paudel

Lecturer of Economics
Makawanpur Multiple Campus
paudelkrishna47@gmail.com

Pabitra Pathak

Lecturer of Economics
Makawanpur Multiple Campus
pabitrathak2041@gmail.com

Rajan Neupane

Lecturer of Economics
Makawanpur Multiple Campus
rajan.np35@gmail.com

REFERENCES

1. Alm, J. (1999). Tax Compliance and Administration. In W. B. Hildreth & J. A. Richardson (Eds.), *Handbook on Taxation*, 741-768, New York: Marcel Dekker.
2. Andreoni, J., Erard, B., & Feinstein, J. (1998). Tax compliance. *Journal of Economic Literature*, 36(2), 818-860. <http://www.jstor.org/stable/2565123>
3. Bryman, A. (2016). *Social Research Methods* (5th ed.). London: Oxford University Press.
4. Chau, G. and Leung, P. (2009). A critical review of Fischer tax compliance model: A research synthesis. *Journal of Accounting and Taxation*, 1, 34-40. http://www.academicjournals.org/app/webroot/article/article1379342283_Chau%20and%20Leung.pdf
5. Das-Gupta, A., and Chattopadhyay, S., (2002). The Personal Income Tax in India: Compliance Costs and Compliance Behavior of Taxpayers. *National Institute of Public Finance and Policy*.
6. Erten, S. (2002). Planlanmış davranış teorisi ile uygulamalı öğretim metodu. *Hacettepe Üniversitesi Edebiyat Fakültesi Dergisi*, 9(2), 217-233. <https://dergipark.org.tr/tr/download/article-file/603325>
7. Etikan, I. (2017). Sampling and Sampling Methods. *Biometrics & Biostatistics International Journal*, 5(6). <https://doi.org/10.15406/bbij.2017.05.00149>.
8. Fischer, C.M., Wartick, M. and Mark, M. (1992). Detection Probability and Taxpayer Compliance: A Review of the Literature. *Journal of Accounting Literature*, 11, 1-46. <https://doi.org/10.5539/ijef.v7n9p207>
9. Franzoni, L. A. (2008). Tax Compliance. In Boudewijn Bouckaert & Gerrit De Geest (Eds.), *Encyclopedia of Law and Economics* (pp. 1-31). Edward Elgar. <https://ssrn.com/abstract=1271168>
10. Jackson, B. R., & Milliron, V. C. (1986). Tax compliance research: Findings, problems, and prospects. *Journal of Accounting Literature*, 5(1), 125-165
11. Kinsey, K. A. (1992). Deterrence and alienation effects of IRS enforcement: an analysis of survey data. In J. Slemrod (Ed.), *Why People Pay Taxes: Tax Compliance and Enforcement* (pp. 259-290). Ann Arbor, MI: University of Michigan Press.
12. Lymer, A., and Oats, L. (2009). *Taxation: Policy and Practice*. (16th ed). Birmingham: Fiscal Publication.
13. Ministry of Finance. (2022). *Budget Report of Nepal 2022*. <https://www.mof.gov.np/site/publication-detail/2376>
14. Niway Ayalew Wondwossen. (2016). Determinants of voluntary compliance behavior evidence from SNNPR, Ethiopia. *International Journal of Science and Research*, 5(12), pp.967-973
15. Riahi-Belkaoui, A. (2004). Relationship between tax compliance internationally and selected determinants of tax morale. *Journal of International Accounting, Auditing and Taxation*, 13(2), 135-143. <https://doi.org/10.1016/j.intaccudtax.2004.09.001>^

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