



Latent Factors of Non-filer: An Analysis of Data from Inland Revenue Office, Surkhet

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Author's contribution

The sole author designed, analysed, interpreted and prepared the manuscript.

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ABSTRACT

This study examines the inducing factors of non-filers in income tax that analyses the data from one of the remote administrative unit of the Inland Revenue Department of Nepal, Surkhet. Descriptive analysis as well as a *Chi-squared* test is carried out to examine the impact of government grant policy on elevating non filers. "Grant in agriculture" is assessed as one of its latent factors. Result confirms its significant positive impact on upraising non-filers with a minimal impact on revenue. Therefore, it suggests to free-off grant seekers from compulsory registration in income tax as one of the eligibility criteria for grant application.

Keywords: Latent factor; non-filers; administrative burden.

JEL Classification: C00, C12.

1. INTRODUCTION

Income tax is one of the major sources of financing public goods particularly in developing countries. Moreover, it is perceived to be instrumental in managing economic equality via

the redistribution of income. A conventional wisdom in public finance views tax and transfer as an important policy tool in minimizing overall income inequality. Thus, a progressive tax system can be applied to reduce income inequality [1]. However, global economic

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evolution is observed as fulfilling the interest of top few percentage of population rather than the population as a whole. The trickle-down effect of the income advocated by neo-liberal economist has proven evidently to be a myth. Initially explored by Ellwood [2] on his book “*The No-Nonsense Guide to Globalization*”, this discourse has been engaged extensively amongst policy architects. Proponents such as renowned economists and philosophers, Stiglitz [3], Piketty [4] and others have indicated this phenomenon through their respective publications.

It has pressurized policy makers universally to engineer a prudent tax policy to tackle economic inequality perpetuated by economic liberalization. As a result many developing countries including Nepal have been striving in broadening the tax base thereby to reduce inequality by the redistribution of income. Nepal’s slogan of “**PAN for All**” declared through the *Budget Speech 2076* can be perceived as aligning with this initiation.

Broadening tax base by bringing entire entities into the tax net, however, did not contribute on tax revenue as theorized. In contrast, it has accelerated the non-compliance behavior by taxpayers, consequently, elevating the burden in tax administration. Inefficiency in tax collection is uprising as a result of negligible increase in tax revenue relative to the supplemented administrative burden. Although a scientific study has not yet been conducted, it is believed that increase in revenue collection with respect to increase in number of taxpayers is minimal. The number of IT registrants have been increased by more than twofold within the period of F/Y 2012/13-2017/18 whereas the contribution of IT on total revenue is increased only by 1.8 times [5].

Low-income countries are collecting taxes of 10 to 20 percent of GDP which is far below than that of high-income countries [6]. Weak compliance is considered as one the reasons for little tax accumulation in these countries. Inland Revenue Department (IRD) has identified non-filing as an important factor of tax compliance. Therefore, it has considered the ratio of non filers (NF) to the total number of registrants as one of the basis of performance assessment of its entire sub-units, Inland revenue offices (IROs). Chief of IROs have signed a performance agreement with the

director general of IRD agreeing to retain NF below than 11% of the total registrants¹.

Beside these, possible factors that invigorate NF has not been scientifically examined. An in-depth empirical study is essential to explore the latent factors of NF. NF originated from the taxpayers who are willing to come into the tax net and from those coming from other stimulating factors may differ in its intensity. Those who would not have been in the tax net otherwise can sometimes be inspired to enter in it by such factors. Government grant and subsidies tied-up with registration requirement in income tax can be an example. For instance, significant number of taxpayers have entered into tax net in order to benefit from agricultural grants². Such taxpayers do not seem enthusiastic for compliance as their primary interest is to grab the opportunity by being registered in the income tax (IT) which is a pre-requisite for the grant recipients³. Thus, they get registered and disappear particularly when they fail to receive the grant. They don’t even realize to unregister in order to free-off themselves from compliance liabilities, i.e. submission of tax return until their status continues as active.

2. PROBLEM IDENTIFICATION

2.1 Causes of Problems

NF is one of the major problems realised by IRD. Despite various efforts its volume is ever increasing. There are several factors that can have significant contribution on increasing NF. Gangl [7] explains the knowledge of taxpayer’s right and perceived threat of corruption as determining factors of NF in developing countries. Barbuta-Misu [8] points out a broad aspects of non-compliance behavior of taxpayers dividing its determinants into economic and non-economic factors. She states the level of income, audit probability, tax rate, tax benefits, the provision of penalties and fine in the former category. Similarly, attitude towards taxes,

¹ See EIMS 2076 at IRD portal for detail.

² Government announced grants in several areas of agriculture in Fiscal Year 2076/077. See budget speech and Red Book for further clearance.

³ Ministry of Finance has not imposed the rule of compulsory registration for Grant recipients although intends to bring all entities in the tax net. Ministry of Agriculture and livestock Development asks farmers to register in tax in order to qualify their grant proposal.

personal social and national norms and perceived fairness falls into the latter class. Moreover, other country-specific factors may also influence tax compliance particularly in the least developed countries. The level of taxpayer education, distance to IROs from their dwelling or business premises, insufficient knowledge of information technology are some nameable factors that could exist in the country like Nepal which ultimately has impact on observed compliance behavior of taxpayers.

Beside these obvious causing factors, there are other latent factors causing NF in developing countries like Nepal. It will be very surprising to state that policy implied by sectoral ministries itself can be considered as one of these latent factors. For instance, grant in agriculture policy is believed to be one of the unexplored factors of NF. However, this is yet neither realized by policy makers nor by IROs that are engaged in tax administration in the field level.

Nepal has allocated Department of Agriculture (DOA) NRs. 2.63 billion in 2076 out of which NRs 1.40 billion was for project grants [9]. The progress report from DOA shows that it has already distributed 62.5% of project grants by the end of this Fiscal Year 2076/077 (April 14, 2019 to April 13, 2020) [9]. Since the grant is focused on uplifting the living standards of remote inhabitants the major chunk of it has been channelized in Karnali Pradesh, a greater part of which falls in the jurisdiction of IRO Surkhet. It has soared the number of IT registrant in this office. Consequently, NF has also been elevated in the same manner.

Table 4 reflects the five years status of NF in the jurisdiction of Surkhet IRO. It shows a continues increase in NF with a significant jump in the latter years, FY 2075/076 and 2076/077 as grant was remarkably increased in this period. This implies that agricultural grant policy has contributed to NF which has not yet been realized. This particular factor is considered as the latent factor of NF and thus its correlation is examined in this study.

Fig. 1 shows NF line skewed upward more sharply compared to registrants line indicating that the ratio of NF is increasing over time. This line is expected to further rise above in Current as well as coming FYs.

3. IMPACT

Several factors should be taken into account while designing a tax policy. The potential revenue, the cost of taxation, equity, fairness and administrability are the major factors to be considered [10]. Designing a tax policy without adequate consideration on these factors may sometimes cause an adverse impact on the efficiency of tax collection and its management. The least effort that yields a higher amount of tax is always preferable from the view point of administrative efficiency. For this reason, indirect tax such as value added tax or consumption tax is preferred in raising tax revenue in developing countries. In the other hand, income tax is imposed with an objective of improving income equality. However, evidence shows its limited role in income mobilization as well as the adjustment of income disparities [11].

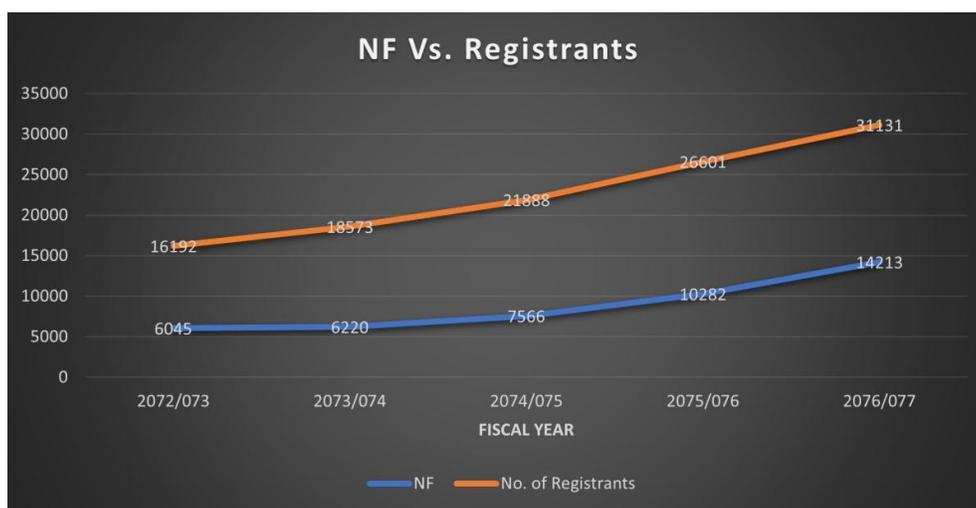


Fig. 1. Trend of NF

Thus, it requires a special attention on achieving administrative efficiency while designing the income tax policy.

Nonetheless tax policy is sometimes announced without giving adequate attention to the adverse effects that can impose on tax administration. Although government has a good intention of bringing entire taxable entities into the tax net, it can be turned out as a big burden for tax authorities by upraising NF. Government policy to provide grants in agriculture has depicted a similar picture in the context of Nepal. It has increased the number of taxpayers but has also soared NF simultaneously. It has compelled tax authorities to shift their efforts from core business i.e. taxpayers education, tax enforcement, exploration of new sectors of potential revenue to despicable activities i.e. providing PAN for grant seekers, processing them into integrated portal and finally chasing them to collect tax return as most of them disappear once they obtain PAN. The ratio of NF to total number of registrants has already been reached to the level of almost half especially grant-targeted areas including IRO Surkhet. Thus, government grant policy in agriculture might play a crucial role for this situation. Almost entire agricultural firms that file tax return in Surkhet IRO is found to fall into the D01 categories paying a negligible amount of presumptive tax⁴. However, it has imposed unnecessary burden to the tax administration driving IROs towards administrative inefficiency, a crucial aspect that a modern tax system aims to overcome from.

4. OBJECTIVE OF THE STUDY

This study aims to explore different factors of upraising NF. Firstly, the general factors that could lead the taxpayers to NF is analyzed. Secondly, it goes further in explaining possible factor of NF which has not yet been realized. Therefore, It has twofold objectives as described below:

4.1 General Objectives

The main objective of this study is to analysis the causing factors of NF in

IT and provide evidence-based policy feedback to policy makers.

⁴ D01 is a format of tax return designed for small taxpayers who pays presumptive tax.

4.2 Specific Objectives

Besides analyzing the general factors of NF that are already been realized, this study aims to flag out a latent factor of NF i.e. government grant policy in agriculture. In other words, it intends to show how the government grant policy in agriculture has played a role in upraising NF to the unmanageable level. Statistical evidence of this study is expected to be helpful in order to address possible consequences while implying such policies in the days to come.

5. METHODOLOGY

5.1 Descriptive Analysis

A descriptive analysis is carried out by segregating the data by business categories. A comparison of the ratio of NF to total registrants is analyzed by five different business categories. A variation in NF by business categories may indicate business-specific effect on compliance behavior. Then, comparison is carried out only in tow categories i.e. agricultural and others. A higher ratio of NF associated with agricultural business compared to others implies that grant in agriculture is elevating NF.

5.2 Statistical Approach

A simple statistical, *Chi-Squared*, test is carried out in order to present statistical evidence which can be specified as follows:

$$\chi^2 = \sum \frac{(O_i - E_i)^2}{E_i} \quad (1)$$

Where,

Subscript i = (i = N..4)

χ^2 = Chi Squared,

O_i =Observed Value associated with it h Category, and

E_i =Expected value associated with it h category calculated as;

$$E_i = \frac{(C_i * R_j)}{N} \quad (2)$$

Equation 1 is implemented to test the following hypothesis with 1 [(row-1)*(column-1)] degree of freedom.

5.3 Hypothesis

Proposed X 2 tests the following hypotheses;

Ho = There is no statistical correlation between non-filers and the agricultural business i.e. government grant policy in agriculture does not have any impact on elevating non-filers.

H1 = There is a significant statistical correlation between non-filers and the agricultural business, i.e. government grant policy in agriculture elevates non-filers.

5.4 Data

This study uses the randomly selected data of 4535 IT registrants within the jurisdiction of Surkhet IRO. This data is then disintegrated into filer and non-filers status by business categories.

Table 1 shows the trend of non-filers across the five years period. It indicates a continuous

growth in NF apart from FY 2073/074. A big jump in NF is observed in last two FYs (2075/076 and 2076/077) in a period when each tiers of government begin to distribute agricultural grant. It *Prima facially* points out the positive relationship between agricultural grant and NF.

Other information associated with taxpayers is extracted from IRD portal and looked at NF status by agricultural and others categories. Table 2 depicts that the ratio of NF status associated with agricultural business is significantly high compared to businesses categorized as others. Similarly, Table 3 shows the status of filers and NF by five business categories. The range of NF lies between 26% to 39%. The agricultural sector stands at the highest range of NF while industry sector being in the lowest. As the NF status of agricultural sector resulted into the highest range, the expected value of NF by agricultural and others is calculated by using Equation 2 and presented in the Table 4.

Table 1. Trend of non-filers

Fiscal Year	2072/73	2073/74	2074/75	2075/76	2076/77
Non Filer	6045	6260	7566	10282	14213
No.of Registrants	16192	18573	21888	26601	31131
NF %	37.33	33.70	34.56	38.65	45.65

Source: IRD Portal

Table 2. Agricultural Vs. Non-agricultural

	Filer	Non-filer	Total
Agriculture	978	631	1609
Others	1945	979	2924
Total	2923	1610	4533

Source: IRD Portal

Table 3. Non-filers by business categories

	Non filer	Filer	Total
Agricultural	631	978	1609
Retails	509	1062	1571
Service	371	632	1003
Industry	55	150	205
Contractors	44	101	145
Total	1610	2923	4533

Source: IRD Portal

Table 4. Observed and expected value

	Filer		Non-filer	
	Observed	Expected	Observed	Expected
Agriculture	978	1038	631	571
Non-agriculture	1945	1885	979	1038

Source: Authors calculation.

6. RESULTS AND DISCUSSION

Descriptive analysis in the above section demonstrates NF associated with agricultural sector as proportionately high compared to other businesses. Almost 40% NF out of total registration on agricultural business signals this phenomenon since other business categories fall significantly below than this ratio. For instance, percentage of NF is 30%, 32% and 36% associated with Contractors, Retails and Service categories, respectively. The industry sector falls into the lowest level of NF. This is a *Prima Facie* evidence of agricultural grant policy to upraise the NF.

In order to further ensure this manifestation statistical analysis is conducted. A *chi-squared* value is calculated by imputing the observed and expected value from Table 4 in the Equation 1 as follows:

$$\begin{aligned} \chi^2 &= \{(1609 \div 2923)/3543\} + \{(1609 \div \\ &1610)/3543\} + \{(1923 \div 2924)/3543\} + \{(2924 \\ &\div 1610)/3543\} \\ &= 3.41 + 6.20 + 1.88 + 3.41 = 14.91 \end{aligned}$$

The calculated value of *chi-squared* is greater than its table value which is 3.84146 at 0.05% level of significance. This is greater than 6.63890 as well a table value of *chi-squared* at 1% level of significance. It implies that null hypothesis is rejected even at 1% level of significance. In other words, statistical evidence shows a strong association of agricultural business and NF in IT in Surkhet IRO. Therefore, agricultural grant has elevated the NF significantly.

7. CONCLUSION

This study hypothesis government policy to provide grant in agriculture as a latent causing factor of NF. Descriptive analysis indicates to accept this presumption. Statistical analysis confirms this presumption derived from descriptive analysis.

The results of this analysis indicates some puzzle in public policy management at present. That is government's effort of providing social welfare may in other hand will stimulate administrative inefficiency. Which in turn, may undermine the scope of welfare distribution in future. Furthermore, it suggests that policy makers should have adequate attention on possible consequences that undermines

administrative efficiency while designing the public policies in future.

Although this study is focused on a very small domain of overall public policy management, it flags out the necessity of scientific analysis in different aspects of sectoral policies in implementation. Such statistical analysis may help to cut down administrative burden and ultimately contributing to the administrative efficiency. Furthermore, this study advises with evidence that particular public policy should not be implied in isolation or without adequate consideration of adverse consequences that may occur in business of other ministries.

8. POLICY RECOMMENDATION

This study shows the evidence of government grant in agriculture policy as a causing factor of NF. Additionally, it demonstrates that farmers who receive the grant are not potential areas from the view point of revenue collection. Almost none of them submit the D03 returns and significant sum of money in tax revenue⁵. It has, in one hand, increased the cost of paying tax who files D01 and D02 tax returns. On the other hand, it has soared NF to the unmanageable level. From neither point of view it seems not to be meaningful to bring such taxpayers into the tax net by imposing tax registration as the prerequisite for receiving grants. Similar condition may depicts in the case of users committee (Literally, "Upabhokta Samiti"). There are many such committees entered into the tax net and associated with different sectoral ministries i.e. ministry of drinking water and sanitation, ministry of forest and environment, ministry of social development and so on. These committees are also similar to agricultural grant seekers in nature. They are focused on just receiving the benefits but not worried about tax compliance.

Government certainly have responsibility of uplifting the well being of disadvantaged, marginalized groups and the the segment of backward population. It demands some target programs such as agricultural grants and development activities through users committee. These could be instrumental for at least uplifting their well being to a higher level. However, government should get them involved in such

⁵ D03 is the format of tax return designed for taxpayers who submit their return on the basis of books of account, financial statement.

schemes by freeing them off from registration requirement in the income tax. By doing so, government can lessen the hassle these target-group are facing at present. In the mean time tax authorities may also enjoy some flexibility to focus on their core business which ultimately increases the efficiency in tax administration. Therefore, this study recommends to free-off grant seekers and users committees from the registration requirement in order to receive such benefits.

9. LIMITATION OF THE STUDY

This study conducted a simple statistical test, *Chi-squared* in order to establish a casual linkage between agricultural business and NF. It has provided a statistical evidence to accept this presumption. An alternative econometric models such as probit and/or logit model may give more robust results. Ordered logit or ordered probit could have also been implemented to test the probability of different level of non-compliance behavior arising from increase in the ratio of agricultural businesses. However, these are not implemented for various reasons. First, information available in IRD portal found to be limited. The level of taxpayers education, distance to IROs from their dwelling, access to internet, involvement in multiple business etc. are not available in IRD data source. This resulted into very limited explanatory variables which did not allow to conduct probit or logit model. Furthermore, a panel analysis became also not possible because of limited explanatory variables. These are considered as the limitation of this study. Despite these limitations, this study may be interesting since it paves the way in encouraging scientific research in future particularly in the area of public policy management where quantitative analysis is rare. It may also enhance future researchers to look at latent variables, government grant policy in this case, while analyzing causes of specific outcome.

COMPETING INTERESTS

Author has declared that no competing interests exist.

REFERENCES

1. Ducan D. Unequal inequalities: Do progressive taxes reduce income inequality?; 2012. Available: <https://repec.iza.org/dp6910.pdf>.
2. Ellwood W. The No-Nonsense Guide to Globalization. New Internationalist, Oxford; 2002.
3. Stiglitz JP. People, power and profits: progressive capitalism for an age of discontent. Penguin Book, USA; 2019.
4. Piketty T. Economics of inequality. Harvard University Press, USA; 2015.
5. IRD. Inland Revenue Management Second Strategic Plan 218/19-2022/23; 2018. Available: <https://ird.gov.np/public/pdf/303710844.pdf>.
6. Besley T, Persson T. Why do developing countries tax so little? *Journal of Economic Perspectives*. 2014;28(4):99–120.
7. Gangl K. Building trust in taxation. Intersentia, United Kingdom; 2017.
8. Barbuta-Misu N. A review of factors for tax compliance. *Economics and Applied Informatics*. 2011;17:1–8.
9. Himalayan. Farmers Receive Rs. 875 m Grant from DoA. Published on 17th August; 2019.
10. Bird RM, Wilkie JS. Designing tax policy: Constraints and objectives in an open economy. International Center for Public Policy. Working Paper Series 12-24, Georgia State University; 2013.
11. Zolt BR. Redistribution via taxation: The limited role of the personal income tax in developing countries. *The ULCA Law Review*. 2005;2(6):20–55.

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