



Public Perception of Multiple VAT Rates in Nepal: An Analytical Study

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Abstract

The aim of this research is to investigate the perspectives of taxpayers, traders, experts, and consumers on the implementation of multiple VAT rates in Nepal's tax system. This study investigates how individuals in Nepal perceive multiple Value Added Tax (VAT) rates. This study employs a unique and descriptive approach with data from 120 participants from the different field, including tax officials, experts, traders, and consumers. Multiple VAT rates are intended to eliminate cascade effects, improve transparency, increase revenue mobilization and broaden the tax base. However, respondents expressed worries about stability, and numerous major points were made regarding the complexity and cost of managing multiple VAT rates. All alternative hypotheses were accepted at significant levels of significance, and the statistical analysis validated the significance of these impressions. The results are helpful for policymakers trying to balance Nepal's VAT system's administrative viability, efficiency, and transparency.

Keywords: Multiple VAT rates, Tax perception, Transparency, Tax compliance, Fiscal policy

Introduction

Value-Added Tax (VAT) is an important aspect of how modern governments raise money. What distinguishes it from a conventional sales tax? Traditional sales taxes are only collected at the final place of sale. However, VAT is charged in phases throughout the whole manufacturing and distribution process. This multi-stage method reduces tax evasion and distributes the tax burden across the supply chain rather than placing it only on the end customer (Zhou et al., 2013). VAT is often returned on exports to make them competitive on the international market, avoiding double taxation.

Nepal implemented VAT on November 16, 1997, as a major tax reform. It replaced various older taxes, including the sales and hotel taxes (Dahal, 2009). The objective was to develop a more comprehensive, equitable, and efficient tax system. However, the adjustment was met with opposition. Many enterprises, particularly in the primary sector, said that VAT raised expenses and caused uncertainty about their tax duties (Devi, 2016). Political instability and economic

constraints also hampered complete implementation in the early years, particularly 1998/99 (Khadka, 1989).

Using different VAT rates allows governments greater flexibility in responding to economic trends and revenue requirements. This strategy, like any other policy instrument, has both advantages and disadvantages. On the positive side, reducing VAT rates on specific commodities might improve consumer spending, increase manufacturing, and even assist generate employment (Basila, 2010). Of course, how effectively this works is totally dependent on what is taxed and how the tax system is structured. As a result, when a government decides to implement various rates, it must carefully weigh the possible advantages and costs.

On the other side, having multiple rates might complicate life for everyone. For firms, changing tax responsibilities raises administrative costs and increases the chance of errors. Consumers may find the final prices unclear (Zu, 2017). There is also a risk of economic distortion, in which businesses alter their products just to qualify for a lower tax rate, reducing government revenue and making the entire VAT system less efficient (Dangal, 2018).

Multiple VAT rates have a basic design: different tax rates are applied to different categories of goods and services. Lower or zero rates on essentials like food and medicine are prevalent, with the goal of making living more affordable for low-income families (Acharya, 2016). However, because consumption taxes, such as VAT, are regressive, meaning that poorer households spend a greater part of their income on these necessities, the policy's effectiveness is questioned. Interestingly, evidence suggests that wealthier households often benefit more from these tax breaks since they purchase more (Wanhill, 1995). This reality brings up critical questions:

Research Question

This study is showed by the following research question:

- How do people perceive multiple VAT rates in Nepal?

Objective of the Study

The specific objective of this study is:

- To analyse the perception of multiple VAT rates in Nepal.

Significance of the Study

When Nepal implemented VAT, the intention was to develop a stronger, more reliable mechanism to pay the country's requirements by increasing domestic revenue. However, the public's impression of VAT continues to vary. Many people still don't understand how it works, and one common concern is that it raises costs immediately, causing inflation (Chapagai, 2021).

So, why does this matter? This research is valuable for a wide range of people, including researchers, students, tax officials, and businesses, who want to better understand how VAT works in Nepal. For policymakers, the findings may give significant, evidence-based guidance for improving how VAT is planned, administered, and, most importantly, communicated to the public.

On a practical level, the study seeks to provide clear guidance to anyone who finds VAT complicated. The recommended ideas could help make the entire VAT system more efficient and

effective. Despite being a part of the economic landscape for over two decades, there is still a major lack of understanding about what VAT accomplishes, its benefits, and drawbacks.

This study, therefore, focuses on the real-world workings of VAT. It investigates its administrative structure, how much it contributes to national revenue, the practical difficulties it encounters, and what could be done to enhance it. Finally, the paper investigates the relationship between VAT and the broader economy, emphasizing its potential to help Nepal become more self-sufficient and alleviate resource constraints. (Upadhyay, 2019).

Methods and Procedures

Research Design

Analytical and descriptive research design was employed in the study. Primary data was gathered using Likert scales in organized opinion surveys to determine people's actual perceptions regarding multiple VAT rates. A simple five-point rating system was employed in the survey, enabling participants to indicate whether they "strongly agree" or "strongly disagree." In social research, this approach is a significant and popular tool to gauge attitudes and views (Wipulanusat et al., 2020).

Population and Sample

The study included individuals who were directly or indirectly involved with the VAT system. A non-random judgmental sampling strategy was used to choose 120 respondents from different parts of Nepal. The sample was drawn from a variety of groups, including tax officers, traders, experts, and consumers, as shown in Table 1.

Table 1
Groups of Respondents and Size of Samples from Each Group

S.N.	Groups of the respondents	Sample size
1	Tax officers	30
2	Businessman/traders	30
3	Experts/Economists	30
4	Consumers	30
Total		120

Sources of Data and Data Collection Tools

Five-point Likert scale being used to collect primary data. The scale was designed as follows: 1 = strongly disagree, 2 = disagree, 3 = indifferent, 4 = agree, and 5 = strongly agree. Likert scale used to know the perception or belief of any specific problem or issue. In this study, the Likert scale provided valuable insights into how individuals perceive and respond to the concept of multiple VAT rates.

To make sense of the survey replies, this study used two important statistical methods: factor analysis and t-tests. Consider factor analysis to be a tool for identifying common themes among diverse perspectives. In contrast, the t-test determines whether or not the observed patterns are

statistically significant. This technique enables us to compare and contrast the perspectives of the many groups involved, ranging from tax authorities and policy experts to traders and consumers. This study aims to determine how each group perceives multiple VAT rates as a mechanism for obtaining funding from the government. Aside from that, the study assessed people's awareness of the multiple VAT rates and their perceptions of the policy's influence on Nepal's economy.

Results

Factor Analysis

To really understand how individuals in Nepal feel about multiple VAT rates, this study employed a statistical technique known as factor analysis. Simply put, this strategy allows us to go through an extensive amount of survey questions to identify the key themes that influence people's attitudes. It reduces all of the different responses to a smaller collection of core components, making the data easier to deal with while retaining the main meaning (Wasylenko, 2007). This paper employed it to reveal the hidden factors that influence the attitudes of four major groups: tax officials, tax experts, traders, and consumers.

Before going into it, the following two tests must be run: The Bartlett sphericity test yielded a statistically significant result ($p = .000$), while the Kaiser-Meyer-Olkin (KMO) measure was 0.697. This KMO score is higher than the acceptable minimum of 0.6 (Coakes & Ong, 2011), indicating that our data was appropriate. This study examined the determinant of the correlation matrix (0.089), which was much higher than the crucial value of 0.00001. This suggests there was no problem with multicollinearity, which means the variables were unique enough to allow for confident analysis (Gujarati et al., 2012). With these positive signals, this study utilizes factor analysis to identify the underlying factors that influence how different stakeholders perceive multiple VAT rates.

Table 2
KMO and Bartlett's Test

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.697
Bartlett's Test of Sphericity	Approx. Chi-Square	274.223
	df	91
	Sig.	.000

a. Determinant = .089
Note: Researcher’s calculation based on field survey, 2019

Principal Component Analysis (PCA)

Table 3
Principal Component Analysis (PCA) Communalities

	Initial	Extraction
Multiple VAT rate enhances the resource mobilization in the economy.	1.000	.724
Multiple VAT rate reduce the burden of tax rate.	1.000	.602
Multiple VAT rate is progressive, i.e. its burden falls proportionately on the various income group people.	1.000	.636
Multiple VAT rate is too difficult to operate from the position of both the tax administration and business.	1.000	.653
Multiple VAT rate avoid cascading effect of taxation.	1.000	.678
Multiple VAT rate is an avenues of the tax reform in Nepal.	1.000	.575
Multiple VAT rate enhances transparency in the tax structure.	1.000	.641
Multiple VAT rate broaden the tax base.	1.000	.421
Multiple VAT rate would be applicable to all transactions of goods and services	1.000	.382
Multiple VAT rate discourages the illegal business.	1.000	.449
Multiple VAT rate is costly to collect and comply with.	1.000	.537
Multiple VAT rate as an anti-inflation fiscal stabilizer.	1.000	.549
Multiple VAT rate is inflationary.	1.000	.786
In a federal country like Nepal, it may be ideal to have multiple VAT rate	1.000	.551
Extraction Method: Principal Component Analysis.		

Note: Researcher’s calculation based on field survey, 2019

According to Table 1.3, the most common application of principal component analysis is the visualisation of trends, leaps, clusters, and anomalies in a multivariate data table as a reduced set of variables. This framework can disclose the connections between observations and variables and among the variables. It can also be utilised to mitigate multicollinearity. Communalities define the quantity of variance in a considered individual variable. Initial communalities approximate the difference between each variable that all its components or factors can explain. For correlation analysis, this is always set to 1.0 for principal component extraction. The nature of the variance ranges from.382 to.786. The variance ranges from 38.2 per cent to 78.6 per cent, implying a range of 38.2 per cent to 78.6 per cent. This variance indicates that factor segmentation is important, as evidenced by the fact that the total variance of multiple VAT rates improves resource mobilisation in the economy by.724. The variance range is, therefore, 72.4 per cent. Similarly, having multiple VAT rates lowers the tax burden by.602. This means the variance range is 60.2 per cent, and additional variables can be defined.

Total Variance Explained in the Context of Multiple VAT Rates

Table 1.4 found that 15 variables are convenient to five major factors with individual Eigenvalues of 3.226, 1.521, 1.220, 1.181, and 1.037 and individual variance of 23.042, 10.863, 8.718, 8.433, and 7.406. The 15 variables explained 58.462 per cent of the variance, which is significant to segregate factors.

Table 4
Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.226	23.042	23.042	3.226	23.042	23.042	2.195	15.679	15.679
2	1.521	10.863	33.905	1.521	10.863	33.905	1.667	11.907	27.587
3	1.220	8.718	42.623	1.220	8.718	42.623	1.577	11.261	38.848
4	1.181	8.433	51.056	1.181	8.433	51.056	1.539	10.991	49.839
5	1.037	7.406	58.462	1.037	7.406	58.462	1.207	8.622	58.462
6	.983	7.020	65.482						
7	.938	6.700	72.182						
8	.764	5.457	77.639						
9	.704	5.026	82.665						
10	.635	4.538	87.203						
11	.556	3.969	91.172						
12	.439	3.136	94.308						
13	.412	2.943	97.251						
14	.385	2.749	100.000						
Extraction Method: Principal Component Analysis.									

Note: Researcher’s calculation based on field survey, 2019
The variables loading on the represented in table 1.5 Rotated Compounded Matrix.

Perception of Multiple VAT Rates Using a Rotated Component Matrix

Table 5
Rotated Component Matrix

	Component				
	1	2	3	4	5
Multiple VAT rate enhances the resource mobilization in the economy.	.785				
Multiple VAT rate is an avenues of the tax reform in Nepal.	.625				

Multiple VAT rate is progressive, i.e. its burden falls proportionately on the various income group people.	.599				
Multiple VAT rate discourages the illegal business.	.550				
Multiple VAT rate avoid cascading effect of taxation.		.765			
Multiple VAT rate enhances transparency in the tax structure.		.620			
Multiple VAT rate broaden the tax base.		.565			
Multiple VAT rate as an anti-inflation fiscal stabilizer.			.686		
In a federal country like Nepal, it may be ideal to have multiple VAT rate			.613		
Multiple VAT rate would be applicable to all transactions of goods and services			.585		
Multiple VAT rate is too difficult to operate from the position of both the tax administration and business.				.730	
Multiple VAT rate is costly to collect and comply with.				.724	
Multiple VAT rate reduce the burden of tax rate.					
Multiple VAT rate is inflationary.					.858
Note: Researcher's calculation based on field survey, 2019					

Factor 1 included four components with factor loadings between 0.550 and 0.785 after using the Varimax Rotation Method with Kaiser Normalisation. First, consider the following items: multiple VAT rates enhance resource mobilisation in the economy; multiple VAT rates are an avenue of the tax reform in Nepal; multiple VAT rates are progressive, i.e., their burden falls proportionately on the various income groups, and multiple VAT rates discourage illegal business. Here, these four items generate a new variable, which is multiple VAT rates for the new tax system in Nepal.

Factor 2 comprises three items with factor loadings ranging from 0.565 to 0.765. The items in factor 2 are: multiple VAT rates avoid the cascading effect of taxation, multiple VAT rates enhance transparency in the tax structure, and multiple VAT rates broaden the tax base. These three items construct a new variable multiple VAT rate system to avoid cascading effects, enhance transparency, and broaden the tax base.

Factor 3 comprises three items with factor loadings ranging from 0.585 to 0.686. Factor 3 is multiple VAT rates as an anti-inflation fiscal stabiliser in a federal country like Nepal, it may be ideal to have multiple VAT rates, and multiple VAT rates would apply to all transactions of goods and services. These three variables combine to create a new variable, which is multiple VAT rates, which is ideal, a fiscal stabiliser, and applicable to all goods and services.

Factor 4 consists of two components whose factor loadings range from 0.724 to 0.730. The items in Factor 4 multiple VAT rates are too difficult to operate from the position of both the tax administration and business, and multiple VAT rates are costly to collect and comply with. A new variable can be generated from factor four: multiple VAT rates are difficult and costly to comply with.

It is concluded that this survey questionnaire is reliable and suitable for this study. It is appropriate to do factor analysis to investigate the factors influencing the perception of multiple VAT rates by the tax administration, specialists, traders, and consumers. Rotated component matrix gives four new variables out of fifteen variables (see Appendix I).

One-Sample T-Test

The respondents expressed their perceptions about multiple VAT rates and their different aspects: multiple VAT rates reform the tax system in Nepal; multiple VAT rates avoid cascading effects; multiple VAT rates enhance transparency and broaden the tax base; multiple VAT rates are ideal, a fiscal stabiliser, and applicable to all goods and services and multiple VAT rates are difficult and costly to comply with. These four new variables are constructed out of fifteen items. The tax administrators, experts, traders, and consumers expressed their perceptions on Likert's five-point scale, ranging from strongly agree to disagree strongly. The following hypotheses are formulated to be verified empirically in this study:

- H1: Respondents agree about multiple VAT rates for the new tax system in Nepal.
- H1: Respondents agree on the need for multiple VAT rates to avoid cascading effects and improve transparency.
- H1: Respondents agree about multiple VAT rates being ideal, fiscal stabilisers, and applicable to all goods and services.
- H1: Respondents agree that multiple VAT rates are difficult and costly to comply with.

The application of the t-test exactly ascertains the opinion of the implementation of multiple VAT rates on tax administrators, experts, traders, and consumers. The following are the results of the t-test.

Table 6
One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
Multiple VAT rates for the new tax system in Nepal.	120	3.7583	.61659	.05629
Multiple VAT rate system to avoid cascading effects, enhance transparency, and broaden the tax base.	120	3.6139	.67224	.06137
Multiple VAT rates, which is ideal, a fiscal stabiliser, and applicable to all goods and services.	120	3.4833	.68851	.06285
Multiple VAT rates are difficult and costly to comply with.	120	3.7833	.86416	.07889

Note: Researcher’s calculation based on field survey, 2019

Table 7
One-Sample Test

	Test Value = 3					
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Multiple VAT rates for the new tax system in Nepal.	13.473	119	.000	.75833	.6469	.8698
Multiple VAT rate system to avoid cascading effects, enhance transparency, and broaden the tax base.	10.004	119	.000	.61389	.4924	.7354
Multiple VAT rates, which is ideal, a fiscal stabiliser, and applicable to all goods and services.	7.690	119	.000	.48333	.3589	.6078
Multiple VAT rates are difficult and costly to comply with.	9.930	119	.000	.78333	.6271	.9395

Note: Researcher’s calculation based on field survey, 2019

The Tables 1.6 and 1.7 describes that examining the views of Nepal's tax administrators, experts, traders, and consumers concerning multiple VAT rates. Using a five-point Likert scale that goes from strongly agree to strongly disagree, the study aims to investigate four hypotheses. The study uses the t-test to analyse the respondents' data. The t-test findings are shown in the above two tables: Tables 1.6 and 1.7.

From Table 1.6 the one-sample statistics for the four variables. Each variable shows the number of respondents, the mean value, the standard deviation, and the standard error mean. The mean value reveals that the average of the five-point Likert scale responses. The standard deviation reflects the degree of variance in the responses, whereas the standard error mean value represents the accuracy of the mean score.

The test results for the four variables can be found in Table 1.7 In this case set the test value to 3 which represents the point, on a five-point Likert scale. The table offers the information on the t value degrees of freedom (df) and significance level for each variable. To calculate the t value, this study divides the difference between the sample score and the test result, by the error mean. The degrees of freedom indicate the number of observations that can change. The significance level shows the likelihood of getting the observed t-value by chance.

The table also shows the mean difference between the mean group score, the test number, and the confidence interval of 95 per cent. The range within which the actual population's mean score is anticipated to fall is indicated by the 95 per cent confidence interval. If the test value is not included in the confidence range, it means that the mean sample score is very different from the test value.

Overall, the t-test findings suggest that the data supports all four hypotheses. The mean score for each variable is much higher than the test value of 3, showing respondents agree with the statements about using multiple VAT rates for different reasons. The confidence intervals do not contain the test value, which adds to the importance of the findings.

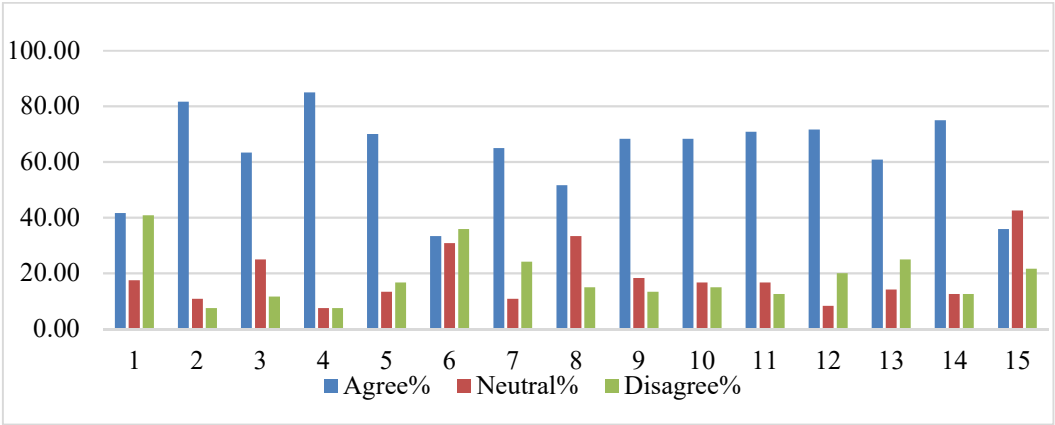
This paper gives empirical evidence that supports the use of multiple VAT rates for tax reform, including avoiding cascading effects, increasing transparency, and applying it to all goods and services. The t-test analysis demonstrates that Nepalese tax officials, experts, traders, and consumers have opinions that are in line with these objectives.

Finally, from tables 1.6 and 1.7, it is found that multiple VAT rates for the new tax system in Nepal.; multiple VAT rates avoid cascading effects; they enhance transparency and broaden the tax base; multiple VAT rates are ideal, a fiscal stabilizer, and applicable to all goods and services; and multiple VAT rates are difficult and costly to comply with. With t-values of 13.473, 10.004, 7.690, and 9.930, respectively, with significant p-values, all five alternative hypotheses are accepted, which is desirable.

Respondents' Perceptions Towards Multiple VAT Rates

Appendix II presents the perceptions of respondents towards multiple VAT rates. The most key points come out after the analysis: multiple VAT rates are progressive, i.e., their burden falls proportionately on the various income groups with a mean value of 4.04; multiple VAT rates enhance resource mobilisation in the economy with a mean value of 3.87; multiple VAT rates are costly to collect and comply with a mean value of 3.87; and multiple VAT rates broaden the tax base with a mean value of 3.73; The other important fact about perceptions towards multiple VAT rates that have come out after analysis is that multiple VAT rates enhance transparency in the tax structure with a mean value of 3.71. The perception of respondents that multiple VAT rates would apply to all goods and services transactions is equally impressive, with a mean value of 3.68.

Figure 1
Responses Regarding Respondents' Attitudes Towards Multiple VAT Rates Related Statements



Note: Based on appendix III
Note: Five scales converted into three scales Agree (Strongly Agree + Agree), Neutral and Disagree (Disagree +Strongly Disagree)

According to Appendix III and Figure 1.1, the following result was found using a Likert scale:

Statement 1 (The existing single VAT rate is to be continued) reveals that 41.67 per cent of respondents agree that the existing single VAT rate should be continued, 40.83 per cent of respondents do not agree the existing single VAT rate should be continued, and 17.50 per cent of respondents remain neutral.

Statement 2 (Multiple VAT rates enhance resource mobilisation in the economy) demonstrates that 81.67 per cent of respondents believe that multiple VAT rates enhance resource mobilisation. It is a significant percentage favouring multiple VAT rates, which can enhance economic resources. Only 7.50 per cent of respondents do not agree with this, and 10.83 per cent have no opinion.

Statement 3 (Multiple VAT rates reduce the tax rate burden) shows that 63.33 per cent of respondents believe that multiple VAT rates reduce the tax rate, 11.67 per cent do not agree with this, and 25 per cent do not have any response on it.

Statement 4 (Multiple VAT rates are progressive, i.e., their burden falls proportionately on the various income group people) reveals that just over half of the respondents, 85 per cent believe that multiple VAT rates are progressive, i.e., their burden falls proportionately on the various income group people. Only 7.50 per cent of respondents believe that they do not agree with it, and 7.50 per cent have no opinion. So, most respondents agreed that multiple VAT rates are progressive and will bring social equality to the economy.

Statement 5 (In a federal country like Nepal, having multiple VAT rates in the state and central government to replace the single VAT rate on goods and services may be ideal). A significant finding was that most respondents (70%) believe that in a federal country like Nepal, having multiple VAT rates in the state and central government, substituting for the single VAT rate on goods and services may be ideal. At the same time, 16.67 per cent disagree, and 13.33 per cent remain neutral.

Statement 6 (Multiple VAT rates are inflationary) shows that 33.33 per cent of respondents believe multiple VAT rates are inflationary. About 35.83 per cent of respondents do not agree with this, and 30.83 per cent remain neutral. Most respondents believe that multiple VAT rates will bring inflation to the economy.

Statement 7 (Multiple VAT rates are too difficult to operate from the position of both the tax administration and business) shows that a relatively high percentage of the respondents, 65 per cent, are of the view that multiple VAT rates are too difficult to operate from the position of both the tax administration and business. A total of 24.17 per cent of respondents do not agree with this, and 10.83 per cent do not have any opinion. This data reveals that implementing multiple VAT rates is not easy from the position of tax administration and business.

Statement 8 (Multiple VAT rates avoid cascading effects of taxation) states that 51.67 per cent of the respondents believe that multiple VAT rates avoid the cascading effects of taxation, 15 per cent do not agree with this, and 33.33 per cent have no opinion.

Statement 9 (Multiple VAT rates are an avenue of the tax reform in Nepal) reveals that 68.33 per cent of respondents said that multiple VAT rates are an avenue of tax reform in Nepal, 13.33 per cent disagree with it, and 18.33 per cent have no opinion. Most respondents agreed that multiple VAT rates could bring about tax reform in Nepal.

Statement 10 (Multiple VAT rates enhance transparency in the tax structure) demonstrates that 68.33 per cent of respondents believed multiple VAT rates enhance transparency in the tax structure, 15 per cent disagreed with it, and 16.67 per cent of respondents remained neutral.

Statement 11 (Multiple VAT rates broaden the tax base) shows that 70.83 per cent of respondents believed multiple VAT rates broaden the tax base, 12.50 per cent disagreed with it, and 16.67 per cent remained neutral.

Statement 12 (Multiple VAT rates would apply to all transactions of goods and services) shows that the majority of the respondent 71.67 per cent believe that multiple VAT rates would apply to all transactions of goods and services, 20 per cent disagree with this, and 8.33 percent remain neutral.

Statement 13 (Multiple VAT rates discourage illegal business) reveals that 60.33 per cent of respondents agree that multiple VAT rates discourage illegal business, 25 per cent disagree, and 14.17 per cent have no opinion.

Statement 14 (Multiple VAT rates are costly to collect and comply with) reveals that 75 per cent of respondent responses say that multiple VAT rates are costly to collect and comply with, 12.5 per cent disagree with this, and 12.50 per cent remain neutral.

Statement 15 (Multiple VAT rates as an anti-inflation fiscal stabiliser) shows that 42.50 per cent of respondents have no opinion that multiple VAT rates are an anti-inflation fiscal stabiliser, 35.83 per cent of respondents believe this, and 21.67 per cent of respondents disagree.

Discussion

This study presents empirical data that supports using multiple VAT rates for tax reform, avoiding cascade effects, increasing transparency, and applying it to all goods and services. The t-test study reveals that the perceptions of Nepalese tax officials, experts, traders, and consumers are consistent with the objective.

Multiple VAT rates reform Nepal's tax system; multiple VAT rates avoid cascading effects, improve transparency, and broaden the tax base; multiple VAT rates are ideal, a fiscal stabiliser, and apply to all goods and services; multiple VAT rates are difficult and costly to implement; multiple VAT rates are inflationary; and multiple VAT rates are undesirable.

A total of 41.67 percent of respondents agreed that the current single VAT rate should be continued, 40.83 percent did not agree that the current single VAT rate should be continued, and 17.50 percent remained neutral. About 81.67 per cent of respondents believe that multiple VAT rates enhance resource mobilisation in the economy. It is a significant percentage favouring multiple VAT rates, which can enhance economic resources. Only 7.50 per cent of respondents do not agree with this, and 10.83 per cent have no opinion. 33 per cent of respondents believe that multiple VAT rates reduce the tax rate burden, 11.67 per cent agree with this, and 25 per cent responded. About half of the respondents, 85 per cent, believe that a multiple VAT rate is progressive, i.e., its burden falls proportionately on the various income groups. Only 7.50 per cent of respondents believe they disagree with it, and 7.50 per cent have no idea. As a result, most respondents agreed that a multiple VAT rate is progressive and will increase economic and social equality.

A total of 51.67 per cent of the respondents believe that multiple VAT rates avoid the cascading effect of taxation, 15 per cent do not agree with this, and 33.33 per cent have no opinion. 68.33 per cent of respondents said that the multiple VAT rate is an avenue for tax reform in Nepal; 13.33 per cent disagreed with it; and 18.33 per cent of respondents had no opinion. Most respondents agreed that multiple VAT rates could bring about tax reform in Nepal. 68.33 per cent of respondents believed multiple VAT rates enhance transparency in the tax structure; 15 per cent disagreed with this; and 16.67 per cent of respondents remained neutral. 70.83 per cent of respondents believed multiple VAT rates broadened the tax base, 12.50 per cent disagreed, and 16.67 per cent remained neutral.

Most respondents (71.67%) believe that a multiple VAT rate would apply to all goods and services transactions, while 20 per cent disagree and 8.33 per cent remain neutral. Multiple VAT rates discourage illegal business; 60.33 per cent of respondents, 25 per cent disagree, and 14.17 per cent have no opinion. 75 per cent of respondent respondents said that a multiple VAT rate is costly to collect and comply with, 12.5 per cent disagree with this, and 12.50 per cent remain neutral. 42.50 per cent of respondents have no opinion on the multiple VAT rate as an anti-inflation fiscal stabiliser, 35.83 per cent of respondents believe this, and 21.67 per cent of respondents disagree. This study presents empirical data that supports using multiple VAT rates for tax reform, avoiding cascade effects, increasing transparency, and applying it to all goods and services. The t-test study reveals that the perceptions of Nepalese tax officials, experts, traders, and consumers are consistent with these objectives.

Conclusion

Based on result and discussion the conclusions, the following policy implications have been developed to improve the functioning of the multiple VAT rate system and generate additional revenue from multiple VAT rates. The multiple-VAT-rate system will accomplish the stakeholders' objectives and implement that policy implication.

The study focuses on switching from a single VAT rate to multiple VAT rates, which may reduce revenue mobilization distortions and promote consumer fairness and justice. So, before jumping into the multiple VAT rate system, the government should start a comprehensive study.

Implementing multiple VAT rates is not easy; it needs a complete tax infrastructure, including well-trained human resources. So, before setting up multiple VAT rates, the government should build all of the infrastructure that will be needed.

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Appendix I : Composite Variables after Performing Rotated Component Matrix

Respondents	Composite Variable 1	Composite Variable 2	Composite Variable 3	Composite Variable 4
1	3.75	3.67	4	4
2	4.25	4.67	4.67	2.5
3	2.75	3.33	4.33	3
4	4.5	4.67	4	4.5
5	4	4.67	2.67	3.5
6	4	3.67	1.67	3.5
7	4.5	4.67	4	3
8	4.25	4.33	3.67	4.5
9	5	4	4.67	3
10	3.5	3.67	3.67	4
11	4	4.33	3.67	4
12	4.5	4.33	4	2.5
13	3.25	3.33	3	2
14	3.5	3.33	3.67	3.5
15	4	4	3.33	4
16	3.5	3.33	4	4.5
17	4.25	3.33	3	4
18	4	3.33	3.67	4
19	4	4	4	5
20	3.25	2.67	3	4
21	3	3	3.33	4
22	3	3	2.67	4.5
23	3	2.33	2.67	4.5
24	3.25	3.33	2	4
25	4	3.33	3.33	4
26	4	4.67	3.67	4
27	4	4	4	5
28	4.5	4	3.33	5
29	3.75	3.67	3.33	4
30	3	4	3.67	4.5
31	3.5	3.33	4	3
32	2.5	2.67	2	3.5
33	4.5	4.33	4	4.5
34	4	3.67	3	5
35	2.5	4.33	2.67	4
36	3.25	2.67	2.33	3.5

37	3.5	2.33	3	5
38	3.75	2.67	4	4.5
39	3.5	3.67	3.33	4.5
40	4.25	3.67	4.33	2.5
41	4	3.67	3	3.5
42	3.75	4	3	3.5
43	2.25	2.67	2.33	5
44	4.25	3.67	3	5
45	4	4	4	4
46	4	4	3.33	4.5
47	4	3.67	3.33	4
48	3.75	4	3	5
49	3.25	4	3.33	4.5
50	3.75	3.67	3.67	4.5
51	3.5	3.67	4.67	4.5
52	4.25	3.33	3.67	3
53	4.25	3.67	3.67	4
54	4	3.67	3.67	2
55	4	4	4	3
56	4	4.67	4.33	4.5
57	4.25	4.67	4	4.5
58	3.25	2.67	4	5
59	3.25	4	4.33	4
60	3.5	4	4	3
61	2.5	3.33	3.33	3
62	4.5	4.33	4.33	4.5
63	4	4	4	4
64	3	4	4	4
65	2.5	4	3.33	4.5
66	4.75	4	4.33	3.5
67	3.5	3.67	4	4.5
68	4	4.33	4	3
69	4.5	4.67	4.33	2.5
70	5	3.67	3.33	3.5
71	4.25	3.33	3.67	4.5
72	3.75	3.67	4.33	4
73	3.25	2.33	3.67	5
74	4	3.33	3.33	2.5
75	4.5	3.33	3.67	5

76	3.25	2.67	3	3.5
77	3.25	4	3.67	4
78	3.5	4	2.67	4.5
79	3.75	2.67	3.67	2
80	4	3	2.67	4
81	4	4.67	3.33	3.5
82	4.5	4.33	2	3.5
83	4.5	3.33	4	4
84	3.5	2.33	3.67	3
85	3	4.33	3.67	4
86	4.25	4.33	2.33	5
87	3.75	4.67	3.67	3.5
88	4	2	2.67	3
89	4.5	3.67	3.67	2
90	3.75	3.67	3.67	2.5
91	4.25	4	3.67	2.5
92	4.25	3.67	3.33	3
93	4	4.33	3.67	2.5
94	3.25	4	4	2
95	2.25	2.33	4	2
96	4.5	3.67	4.67	3
97	4	3.67	3.33	4
98	3.25	3.67	1.67	4
99	4	3.67	3.33	3
100	4	4	2	2
101	4	2.33	3.67	3.5
102	1.75	1	1	5
103	4.25	3.67	4.67	2.5
104	4	4	3.67	3.5
105	3	2.33	2	4.5
106	4.25	3.67	3.67	3
107	4	3.67	3.67	3
108	2	2.33	3.33	5
109	4.25	2.67	3	3
110	4.25	3.67	3.67	5
111	4.25	3.67	3.67	4
112	4	4	3	4.5
113	3.25	3.67	3.67	4.5
114	4	3.67	4	4.5

115	4	3.67	4	4.5
116	2.75	3.33	3	4
117	3.75	3.67	3.67	3
118	4	3.33	4	2.5
119	4	3.33	3.67	4
120	3.25	3.67	3.67	5

Source: Researcher’s Calculation
Note: Composite Variable 1: Multiple VAT rates for the new tax system in Nepal

Composite Variable 2: Multiple VAT rate system to avoid cascading effects, enhance transparency, and broaden the tax base
Composite Variable 3: Multiple VAT rate, ideal, a fiscal stabiliser, and applicable to all goods and services
Composite Variable 4: Multiple VAT rates are difficult and costly to comply with

Appendix II : Perception of Respodents towards Multiple VAT Rate

Statements	N	Mean
S1. The existing single VAT rate is to be continued	120	3.10
S2. Multiple VAT rate enhances the resource mobilization in the economy.	120	3.87
S3. Multiple VAT rate reduce the burden of tax rate.	120	3.62
S4. Multiple VAT rate is progressive, i.e. its burden falls proportionately on the various income group people.	120	4.04
S5. In a federal country like Nepal, it may be ideal to have multiple VAT rate	120	3.64
S6. Multiple VAT rate is inflationary.	120	2.98
S7. Multiple VAT rate is too difficult to operate from the position of both the tax administration and business.	120	3.70
S8. Multiple VAT rate avoid cascading effect of taxation.	120	3.40
S9. Multiple VAT rate is an avenues of the tax reform in Nepal.	120	3.66
S10. Multiple VAT rate enhances transparency in the tax structure.	120	3.71
S11. Multiple VAT rate broaden the tax base.	120	3.73
S12. Multiple VAT rate would be applicable to all transactions of goods and services	120	3.68
S13. Multiple VAT rate discourages the illegal business.	120	3.46
S14. Multiple VAT rate is costly to collect and comply with.	120	3.87
S15. Multiple VAT rate as an anti-inflation fiscal stabilizer.	120	3.13
Valid N (list wise)	120	

Source: Field Survey, 2019

Appendix III : Responses regarding respondents’ attitudes towards multiple VAT rates related statements

Statements	Agree%	Neutral%	Disagree%
1. The existing single VAT rate is to be continued.	41.67	17.50	40.83
2. Multiple VAT rate enhances the resource mobilization in the economy.	81.67	10.83	7.50
3. Multiple VAT rate reduce the burden of tax rate.	63.33	25.00	11.67
4. Multiple VAT rate is progressive, i.e. its burden falls proportionately on the various income group people.	85.00	7.50	7.50
5. In a federal country like Nepal, it may be ideal to have multiple VAT rate in the state and central substituting the single VAT rate on goods and services.	70.00	13.33	16.67
6. Multiple VAT rate is inflationary.	33.33	30.83	35.83
7. Multiple VAT rate is too difficult to operate from the position of both the tax administration and business.	65.00	10.83	24.17
8. Multiple VAT rate avoid cascading effect of taxation.	51.67	33.33	15.00
9. Multiple VAT rate is an avenues of the tax reform in Nepal.	68.33	18.33	13.33
10. Multiple VAT rate enhances transparency in the tax structure.	68.33	16.67	15.00
11. Multiple VAT rate broaden the tax base.	70.83	16.67	12.50
12. Multiple VAT rate would be applicable to all transactions of goods and services.	71.67	8.33	20.00
13. Multiple VAT rate discourages the illegal business.	60.83	14.17	25.00
14. Multiple VAT rate is costly to collect and comply with.	75.00	12.50	12.50
15. Multiple VAT rate as an anti-inflation fiscal stabilizer.	35.83	42.50	21.67

Source: Field Survey, 2019

Appendix IV : Perception of People Towards Multiple VAT Rates in Nepal

Statements	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)
1. The existing single VAT rate is to be continued.					
2. Multiple VAT rates enhances the resource mobilization in the economy.					
3. Multiple VAT rates reduce the burden of tax rate.					
4. Multiple VAT rates is progressive, i.e. its burden falls proportionately on the various income group people.					
5. In a federal country like Nepal, it may be ideal to have multiple VAT rates in the state and central substituting the single VAT rate on goods and services.					
6. Multiple VAT rates is inflationary.					
7. Multiple VAT rates is too difficult to operate from the position of both the tax administration and business.					
8. Multiple VAT rates avoid cascading effect of taxation.					
9. Multiple VAT rates is an avenue of the tax reform in Nepal.					
10. Multiple VAT rates enhances transparency in the tax structure.					
11. Multiple VAT rates broaden the tax base.					
12. Multiple VAT rates would be applicable to all transactions of goods and services.					
13. Multiple VAT rates discourages the illegal business.					
14. Multiple VAT rates is costly to collect and comply with.					
15. Multiple VAT rates as an anti-inflation fiscal stabilizer.					