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evidence from Zimbabwe

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Abstract

The article investigates tax morale during different economic milieus, going hand in hand with the introduction of different currency regimes. It was guided by econometric research and data were collected using questionnaires from the 2010-2014 and 2017-2020 World Values Survey (WVS). For Zimbabwe, Wave 6 and Wave 7 had a sample size of 1500 and 1200 respectively. The article's dependent variable, tax morale and independent variables included marital status, age, income level, employment and religion among others, and analysed them using the Ordered Logit Model. The article concludes with an understanding of how tax morale and its determinants is crucial for governments in their bid to boost voluntary compliance. Also, different economic milieus for a particular country affect the level of tax morale significantly. Tax morale was established to be high when Zimbabwe was experiencing economic growth due to the introduction of multi-currency, herein called the dollarization period, and the opposite was true for the post-dollarization era. Corruption, which is a menace under study, has proven to be an important factor that influences tax morale. Results of all the models show that demographic factors have little effect on tax morale. The article introduced an important variable of hunger in its analysis of determinants of tax morale. The article showed that there is a negative relationship between hunger and tax morale for Zimbabwe in both economic situations. Based on the findings, policy makers should consider the eradication of corruption and hunger in order to boost tax morale, which in turn improves tax compliance. Also, policy makers should include improvement in the perception of democracy in the mix of enhancement strategies of tax compliance.

1 Introduction

Zimbabwe is a predominantly interesting country to analyse tax morale and its determinants because there have been a number of major changes that have occurred to its economic situation and tax system over the past 20 years. The most notable examples have been the introduction of the self-assessment system in 2008 and the introduction of the Value Added Tax in 2004. Of particular interest also was the introduction of dollarisation and the subsequent abandonment of the multi-currency four years later. The concept of tax morale came as a result of failure by previous research to explain why people pay tax even when the tax rates and probability of audit are low, and the difference in tax compliance rates among nations (Torgler et al. 2007:02). Research has shown that tax morale is positively correlated with tax compliance and tax effort. At an intrinsic level, tax morale is based on the assessment of state legitimacy, credibility and political ratification as well as perceived fairness and effectiveness of the state and its institutional environment (corruption, tax justice and application of the rule of law) (Everest-Phillips, 2010). Thus, this article will look at tax morale at an intrinsic level as there is a need to determine how the political, legal and regulatory environment has affected the taxation levels within the Zimbabwean context.

Tax morale has been defined as the general inclination and motivation to comply with tax laws and regulations (Calvet and Alm, 2013:66). It is the inherent motivation to pay tax obligations that represents a taxpayer's readiness and moral belief in paying taxes and contributing fairly to the society (Luttmer and Singhal, 2014:149). Mohlmann (2013:02) described tax morale as a psychological explanation for voluntary tax compliance.

The term "tax morale" summarises a number of factors and motivations such as social norms, personal values and other cognitive processes that significantly influence an individual's intentional compliance with tax laws (Brink and Porcano, 2017:91). Moreover, Torgler (2003:04) regarded tax morale as the intrinsic motivation to pay taxes. The belief of

contributing to the state through the payment of taxes is another definition of tax morale (Cummings et al. 2009:448). Tax morale can also be defined as the willingness to pay taxes by the individual (Torgler, 2004:239). Ultimately, tax evasion occurs when, for some reason, taxpayers do not comply with tax laws or do not pay the expected tax as determined using the existing tax rules and regulations (Brink and Porcano, 2017:89). More so, social norms characterise tax morale as they make the decision to evade tax unattractive. The authors also describe the concept as a return rendered to the government for its provision of public goods and services. Tax morale can be summed up as a moral obligation of paying taxes and an idea of contributing to the country by paying taxes. This study will adopt the definition of tax morale which implies that it is an intrinsic motivational factor that explains the willingness or ability of a citizen to pay tax.

2   Literature review

Corruption is rife in developing countries, especially in Africa, where according to the Abdul–However, Razak and Adafula (2013:54) found that in Ghana, government accountability did not affect tax morale. Bodea and LeBas (2013:02) noted that tax morale is important as it enhances voluntary tax compliance, which is desirable in developing countries. They added that tax authorities in the less-developed countries are still behind in terms of contemporary tax collection methods. Subsequently, the increase of tax enforcement and penalties for evasion leads to dwindling tax revenues. Luttmer and Singhal (2014:152) added that tax morale is important as it is the residual component that explains tax compliance behaviour in a heavily enforced environment.

Tax morale is also valuable to an economy because it reduces the cost of financing the public sector (Doerrenberg et al, 2012). A high level of tax morale will thus imply that the tax base is large, and hence tax rates can be reduced. Important also, is that when tax morale is high, tax distortions of economic activity are smaller and tax enforcement and administration costs are lower than in cases where tax morale is low. Alm (2019) highlighted that tax evasion reduces both public revenue and the availability of public services and also discriminates against honest taxpayers.

As noted above, tax morale has a negative relationship with tax evasion. Thus, through improved tax morale, tax non-compliance will fall. Subsequently, there will be an increase in service provision and encouragement of paying tax to would-be tax dodgers. Personal circumstances and opposition to particular government policies, in contrast, are destabilizing influences, causing tax morale to fluctuate.   The importance of tax morale is multi-faced as it can also be used to predict the election results of a particular country. Both public-spending efficiency and tax morale affect tax evasion, and these coupled with ethical and social norms influence a taxpayer's beliefs and behaviours in relation to tax. Inefficient public spending is believed to lower the psychological and social cost of tax evasion measured in terms of the guilt and bad morality felt by the taxpayer (Brink and Porcano, 2017:89).

2   The macroeconomic and taxation environment in Zimbabwe

Generally, Zimbabwe has been regarded as an agro-based country, with more than 80% of the populace depending on agriculture for their livelihoods. Although the agriculture sector has been affected by the controversial land reform, it remains a significant contributor to the Zimbabwean economy. Zimbabwe has managed to maintain a comparative advantage because of the mineral resources it owns, such as iron ore, chrome and coal, as well as its cheap labour. However, over the past two decades, the Zimbabwean economy has been through a pervasive economic collapse. Furthermore, certain developed countries such as the United States of America and Britain have imposed sanctions on Zimbabwe, which has made it difficult for her to access credit lines and donor funding.

Although it is internationally acknowledged that SMEs play a significant role in economic development, the sector has been criticised for being a 'hard to tax' sector (Dlamini, 2017). This is the case in Zimbabwe, where despite these SMEs having become the major employer in Zimbabwe, they are not contributing meaningfully to the fiscus as they are generally non-compliant on tax remittances. A slowdown in economic activities depresses the implementation of tax legislation and this is exacerbated by the informality of the informal sector. The challenges in raising tax revenue from the informal sector in Zimbabwe have not just been a result of the nature of the SME sector itself, but because of the lack of capacity and will by tax authorities to implement and administer taxation legislation. Zimbabwe, like any other developing country, faces the following challenges such as insufficient staff with appropriate skills, lack of up-to-date equipment, complex tax laws, corruption, the growth of informal traders and paltry budgetary allocations. Zimbabwe has had a number of phases in terms of political legitimacy, especially in the form of disputed elections. In 2008, 2013 and 2018 these elections were disputed and as such, there is a need for this article to determine how these phases of political disputation have affected the level of tax compliance and morale within the Zimbabwean context.

In this article, *2009 to 2014* is the period which is taken as when the economy of Zimbabwe was stable. The Zimbabwean Government adopted the multi-currency system, in which the USD dollar was predominant. The period saw economic growth when the ZANU-PF government entered into a Government of National Unity with the opposition MDC party that lasted until 2013. There was sufficient foreign money in circulation to facilitate the transition, allowing the banking system to stabilize (Southall, 2018). There was immediate relief from inflation, the return of consumer goods to the shops, and a much-welcomed increase in business confidence; these and other factors facilitating rapid growth, particularly in the mining, agricultural and financial sectors.

The economy of Zimbabwe grew at an average of 12% for the period mentioned above, making it one of the fastest-growing economies in the world, improving from negative growth from 1998 to 2008. During this period inflation averaged 3%, a remarkable decrease from more than 1000% that had characterised the preceding period. The appropriation of the US dollar as the foremost mode of trade balanced the economy astoundingly rapidly. Accordingly, the approaches turned out to be more objective, and the economy recorded surprisingly high paces of development, but from a low base (Southall, 2017). Tax systems are dynamic, iterative systems which change over time for several reasons, and the most common influences on a changing tax system are political and economic (Mcauliffe, 2017). The period 2007-2009 went down as a historic one for both good and bad reasons on the economic front, as the country reached the peak of its economic meltdown and rampant inflation, and the collapse of the economy severely devalued the Zimbabwean currency (Mufudza et al. 2013). However, the bad reason for the period of stability was that the country's total debt including arrears as at 31 October 2009 was US$5.417 billion, representing a debt to GDP ratio of 121.7% (Ndedzu *et al.*, 2013). Of this amount, external payment arrears were US$3.839 billion, about 71% of the overall debt. Government arrears alone were US$2.340 billion whilst parastatal, Reserve Bank and private sector arrears accounted for US$895.7 million, US$568.8 million and US$34.4 million respectively. This is not in line with the targets for macroeconomic convergence in the SADC which require that the overall budget deficit (excluding grants) and public debt should be less than 10% and 60% of GDP respectively (Ndedzu et al. 2013).

The Zimbabwean Government temporarily stopped publishing official inflation figures on 13 July 2007. The same happened again in 2019 towards year-end when the Government, through

the Ministry of Finance, stopped publishing inflation figures. In Zimbabwe corporate administration is picking up dynamism as proven by the distributing of Corporate Governance Guidelines by the Reserve Bank of Zimbabwe (RBZ) in 2004 (Dube and Murahwe, 2015). The budgetary emergency that influenced the banking sector in the period 2003 to 2004 saw five banks put under curatorship, two sold and four saved through the Troubled Bank Fund. The crisis was to a great extent ascribed to poor corporate administration.

The article will determine the validity of the argument in explaining the tax morale with the Zimbabwean context during the period extending from 2009 to 2013. It is argued that tax morale is negatively correlated with shadow economy activities and positively correlated with direct democracy. This may be explained by differences in the fairness of tax administration, perceived equity of fiscal exchange, attitudes toward respective governments, and differences in culture, which also interact with demographics and trustworthiness (Kemme et al. 2020). Overall, this article intends to determine the strength and direction of the relationship between tax morale and tax evasion under the economic and political environments which Zimbabwe underwent.

A period of economic instability followed when the Zimbabwean economy suffered stunted growth. The economic meltdown has led to massive deindustrialization and a significant decline in both manufacturing and agricultural productivity and output, leading to an unprecedentedly dramatic increase in unemployment and poverty. More so, the production of the main foreign currency earners in mining such as gold, diamonds and coal fell by more than 27%. The year 2013 meant the lapsing of the Government of National Unity (GNU), and elections were held. Soon after the 2013 elections, foreign investment largely dried up, renewed growth slumped and Zimbabweans found themselves facing an acute liquidity crisis. More so, the Indigenisation Act was enacted which directed that all mines had to be 51 per cent Zimbabwean-possessed, leading to failure by the government to lure internal venture or enhance exports, and an increase in production costs. The Act has also been credited with creating further uncertainty in the economy and negatively impacting the investment climate in the country. To put it plainly, the limit of the economy to procure US dollars by selling merchandise remotely had fallen significantly, and the flexibility of cash circulating within the nation had evaporated (Southall, 2017). There were not enough funds to grease the economy, notably the informal sector, upon which poor Zimbabweans are largely dependent. Subsequently, the Reserve Bank of Zimbabwe (RBZ) imposed severe limits upon the amount that people could withdraw from their bank accounts, leading to a crisis of confidence in the banking system (Dube and Gumbo, 2017).

Southall (2018) posited that bond notes were presented by the Reserve Bank of Zimbabwe in late 2016 identical in value to the US dollar to address the intense cash shortage distressing the economy. Bond notes were overwhelmingly dismissed by Zimbabweans, who expected that they proclaimed a re-visitation of the hyper-inflation which had pulverized livelihoods and investment funds in 2006–2008. Again, the RBZ reacted by restricting the measure of dollars that people could pull back to a stream, driving depositors to queue for quite a long time to lay hands on their cash. There had thus been a huge breakdown of trust in the banks, with no one needing to keep their cash in them.

Credibility was a major concern in the choice of a monetary policy framework to replace the multi-currency regime given the culpability of the Reserve Bank of Zimbabwe (RBZ) in the recent hyperinflation (Buigut, 2015). In this case, it needs to be understood how the changes in

the Zimbabwean state legitimacy, credibility, political ratification, corruption, tax justice and application of the rule of law over the period from 2009 to the present, affected tax morale.

In addition, the period was affected by Cyclone Idai, resulting in reduced economic activities, especially agriculture, which experienced a double-digit decline. The World Bank (2019) estimated that extreme poverty rose from 29% in 2018 to 34% in 2019, translating to an increase from 4.7 to 5.7 million people. The Bank indicated that the increase in poverty levels was driven by economic contraction and the sharp rise in the prices of food and basic commodities. Furthermore, the shrinkage of agricultural production following an El Nino-induced drought worsened the circumstances, especially in rural areas. Additionally, Cyclone Idai also worsened the situation in three key provinces that typically account for 30% of agricultural output. The dry spell has additionally prompted a more extensive effect in the electricity and water spheres, causing inescapable proportioning and levy changes in accordance with overall costs

The surge in inflation was a further challenge that characterized this period. The inflation rate has been increasing since October 2018, mainly because of the monetisation of sizable financial shortfalls of the past, price distortions, and deterioration in the value of bond notes. Annual inflation reached 230% in July 2019 following the adoption of a new Zimbabwe dollar and a ban on the use of foreign currency, thereby sparking fresh concerns that the country was entering a new period of hyperinflation. The year-on-year inflation rate was 521% in December 2019. Inflation remains high in 2020 due to the outbreak of the COVID-19 pandemic.

Most of the challenges emanated from policy inconsistencies, economic mismanagement, corruption and political instability. This affected taxpayers' perception of government and how it uses tax revenues, which ultimately shaped political willingness to organise for tax and tax compliance purposes. The circumstances have been worse for Zimbabwe because, due to the economic meltdown, companies are generally struggling economically, and the general tendency in an economic slump is to evade taxation.

3   Data analysis and research methodology

The article made use of a quantitative research design to understand the determinants of tax morale in Zimbabwe. The main source of data for the article is Wave 6 (2010-2014) and Wave 7 (2017-2020) of World Values Survey (WVS). The WVS investigates socio-cultural and political change and collects comparative data on values and belief systems. It is based on representative national samples of at least 1000 individuals. The WVS is conducted worldwide and covers quite a large number of countries. For Zimbabwe, Wave 6 and Wave 7 had a sample size of 1500 and 1200 respectively. The survey interviewed participants who were above 18 years regardless of gender. The participants were also drawn from all the provinces in Zimbabwe both from rural and urban areas. The data from WVS is reliable since it has been used by many researchers in the field of tax morale. Reliability was measured using Cronbach's alpha (α). The scale items will be regarded as reliable as Cronbach's alpha (α) values are greater than 0.70.

Data were analysed using an Ordered Logit Model and the dependent variable, tax morale and independent variables were marital status, age, income level, employment and religion and hunger. The WVS dataset commonly used a 10-point Likert Scale approach to generate data on tax morale from the respondents. Tax morale is captured by compressing the 10-point Likert Scale into 4-point scale. The 4-point scale developed in this article took the values 3 for never justifiable, denoting high tax morale and 0 for always justifiable, meaning low tax morale. Values 1 and 2 represent mid-low and mid-high tax morale respectively.

The article dependant variable – tax morale, is qualitative in nature and has more than two categories, hence calling for an ordered logistic model. Ordered logistic regression is employed when dependent variables involve three or more categories (Ari, 2016).

The empirical model is specified as follows:

$Tax\ morale = F(Age, gender, edu, ms, es, reli, inc, hu, corr, tp, happ, SD, Prid, aw)$ or equivalently

$$P(TMorale = 1/X)$$
$$= \beta_0 + \beta_2 age + \beta_3 gender + \beta_4 edu + \beta_5 ms + \beta_6 inc + \beta_7 reli + \beta_8 corr$$
$$+ \beta_9 happ + \beta_{10} hu + \beta_{11} es + \beta_{12} SD + \beta_{13} Prid + \beta_{14} aw + \beta_{14} TP + \mu\_i$$

Where $P(Tax\ Morale = 1/X)$ is the probability that an individual is willing to pay tax given the vector of observable demographic, economic and institutional characteristics;

β_0 is a constant, age is age of the respondent; $gender$ is sex of the respondent; $educ$ is education of the respondent; ms is marital status; es is employment status for the respondent; inc is income of respondent; $reli$ is religion of respondent; hu is level of hunger of the respondent; $corr$ is corruption perception; TP is trust in parliament SD is the level of satisfaction with democracy in Zimbabwe; $Prid$ is the level of the respondent's pride with Zimbabwe; aw is the level of awareness; $Happ$ is the level of happiness; μ_i is an error term.

4   Results

Several diagnostic tests were carried out. A multicollinearity test was used to check linear dependence between explanatory variables; a correlation test was carried out. A correlation matrix will be computed and if explanatory variables are correlated, then there is a problem of multicollinearity and this may result in biased results. To solve this problem, one of the variables should be dropped. The Ramsey Regression Equation Specification Error test (RESET) for misspecification will be carried out. The test detects omitted variables and incorrect functional form of the model. The log likelihood ratio test (LRT) was used in the Likelihood Ratio Chi-Square test of whether all predictors' regression coefficients in the model are simultaneously zero. These are the test statistics and p-value, respectively, for the null hypothesis that an individual predictor's regression coefficient is zero given that the rest of the predictors are in the model.

Table 1 presents results of the ordered logit model analysis for 2 periods. The first column from the left shows the variables in the empirical model, the second shows regression results for Zimbabwe in the post dollarization period, the third shows results for Zimbabwe during the dollarization period.

Empirical analysis of the determinants of tax morale during and after dollarization shows that marital status does not explain tax morale in the post-dollarization period. However, those who are separated and single indicated high tax morale during dollarization period. While separated is significant at 10% significant level with a z-statistic of 1.92, single is significant at 5 percent level with a z-statistic of 2.11. The results indicate that being separated relative to divorce increases the probability of high tax morale by 12.8% while being single relative to divorce increases the probability of high tax morale by 10.7%.

Perception on democracy has been found to influence tax morale in both periods. Nonetheless, the results for democracy in the post-dollarization period is quite surprising. They contradict the theoretical prediction. While theory predicts that people who believe the country to be democratically governed, are expected to have high tax morale, the results show the opposite. The regression results indicate that complete democracy is negative and statistically significant at 10% significance level. Results further indicate a z-statistic of -1.70. The results show that, complete democracy, relative to no democracy, reduces the chances of high tax morale by 4.6%. Further indications are that mid low democracy and mid high democracy are positive and statistically significant during the dollarization period, both at 10% level of significance,

with z-statics of 1.74 and 1.72 respectively. This implies that mid low and mid high democracy, relative to no democracy, increases tax morale during dollarization period by 5.9% and 6% respectively.

Table 1 : Ordered logit regression results

Variables		Code	Zimbabwe: Post-dollarization		Zimbabwe: Dollarization	
			Coefficients (Z-Statistic)	Marginal Effects	Coefficients (Z-Statistic)	Marginal Effects
Marital Status	Married	1	.0094171 (0.02)		.4284091 (1.37)	
	Living together as married	2	.5800356 (0.69)		.1178515 (0.24)	
	Divorced (Base)	3	----------		-------	
	Separated	4	-.0012551 (-0.00)		.8663057 (1.92)*	-.127697
	Widow	5	.0083608 (0.02)		.4275914 (1.14)	
	Single	6	.338936 (0.70)		.7066226 (2.11)**	-.1071061
Democracy	Not at all democratic (Base)	1	--------		-------	
	Mid low democracy	2	.110642 (0.52)		.4001373 (1.74)*	-.0593806
	Mid democracy	3	.1914844 (0.92)		.1943138 (0.87)	
	Mid high democracy	4	-.0627083 (-0.21)		.4026221 (1.72)*	-.0597231
	Completely democratic	5	-.4123182 (-1.70)*	.0462328	.238582 (0.90)	
Religion	A religious person (Base)	1	-------		--------	
	Not a religious person	2	-.7335665 (-1.90)*	.0907069	.0053336 (0.02)	

	An atheist	3	.6162435 (0.34)		.3044273 (0.48)	
Pride	Very Proud (Base)	1	---------		--------	
	Quite Proud	2	-.1004705 (-0.48)		.3117794 (2.09)**	.0439014
	Not Very Proud	3	.0585046 (0.22)		.6611218 (2.02)**	.0871073
	Not at All Proud	4	-.2050597 (-0.75)		.295523 (0.35)	
	Not Zimbabwean	5	.2323125 (0.14)		2.572998 (1.31)	
Employment Status	Full Time Employment	1	.107675 (0.40)		.0616993 (0.33)	
	Part Time	2	.2338453 (0.69)		-.0288444 (-0.12)	
	Informal Employment (Base)	3	--------		-------	
	Unemployed	4	.0498386 (0.28)		-.2014747 (-1.22)	
Income Level	Lower Class	1	-.2748208 (-1.24)		-.0207662 (-0.12)	
	Middle Class (Base)	2	--------		--------	
	Upper Class	3	-.2818131 (-1.65)*	.026263	.0419559 (0.31)	
Gender	Male	1	---------		--------	
	Female	2	.0491599 (0.30)		.0816332 (0.64)	
Age	16-25	1	-.2498024 (-1.14)		-.1299971 (-0.85)	
	26-59 (Base)	2	--------		-------	
	60+	3	.1030589 (0.43)		.138532 (0.603)	

Corruption	Not Justifiable	1	-.3453783 (-1.07)		2.195754 (12.47)***	.4409008
	Somehow Justifiable	2	-------		-------	
	Always Justifiable	3	-.5053274 (-2.31)**	.0434272	-1.177363 (-2.75)***	.2276915
Happiness	Very Happy	1	.0646672 (0.30)		.3763216 (2.83)***	.0540867
	Rather Happy (Base)	2	----------		-------	
	Not Very Happy	3	-.1826793 (-1.01)		-.0809876 (-0.45)	
	Not Happy at All	4	.1188297 (0.51)		.7712259 (2.03)**	.1028253
Awareness	Daily	1	.118984 (0.61)		-.0779138 (-0.52)	
	Weekly (Base)	2	---------		-------	
	Monthly	3	.2156289 (0.68)		-.2028686 (-0.73)	
	Less than monthly	4	.6343276 (1.72)*	.0524198	-.4065117 (-1.82)*	.0611601
	Never	5	-.0199096 (-0.09)		.0491861 (0.22)	
Education	Below Primary level	1	.0098071 (0.02)		.2609935 (0.78)	
	Primary level	2	.9135844 (2.40)**	.1146986	.2588695 (1.16)	
	Secondary Level	3	.884962 (2.35)**	.11209	.3959813 (2.03)**	.0595341
	University level and above (Base)	4	---------		-------	
Hunger	Often	1	.2133399 (1.00)		-.4476147 (-1.67)*	.0687196
	Sometimes	2	.5817029	.0573949	-.2346452	

			(2.74)***		(-1.37)	
	Rarely (Base)	3	---------		------	
	Never	4	.454632 (2.21)**	.046878	.0752659 (0.52)	
Trust	A great deal	1	-.0841116 (-0.36)		.1805055 (0.90)	
	Quite a lot (Base)	2	---------		-------	
	Not very much	3	.3487155 (1.76)*	.0306221	.0600668 (0.43)	
	None at all	4	-.1631792 (-0.75)		-.0223649 (-0.12)	
Number of observations			1215		1215	
LR chi2(41)			56.39		305.46	
Prob > chi2			0.0553		0.0000	
Pseudo R2			0.0335		0.1081	

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Specification Test: Linktest; a simplified version of the Ramsey Regression Equation Specification Error test (RESET)
Table 2 : Linktest Post dollarization

taxmorale	Coef.	Std. Err.	z	P>|z|
_hat	1.165055	.2125178		0.000
			5.48	
_hatsq	-.1420445	.1433924	-	0.322
			0.99	

As the prediction squared has no explanatory power, the regression model shows no evidence of misspecification

4.1 Dollarization and post-dollarization regression results

Empirical analysis of the determinants of tax morale during and after dollarization shows that marital status explains tax morale for the dollarization period only. Firstly, the separated have 138% higher odds of being in the higher category of tax morale than the divorced at the 10% level of significance. Also, the single is 2.02 times more likely to have higher tax morale than the divorced at the 5% level. Therefore, being single or separated is associated with having higher tax morale than the divorced in dollarized Zimbabwe, all other variables held constant. Perceptions of democracy have been found to influence tax morale in both periods. Nonetheless, the results for democracy in the post-dollarization period are quite surprising. They contradict the theoretical prediction. Whilst theory predicts that people who believe the country to be democratically governed are expected to have high tax morale, the results show the opposite. People who believe the country to be completely democratic were 44% less likely to be in the high tax morale category than those in the not democratic at all category. On the contrary, and in line with theory, people in the mid-low and mid-high democracy categories are both 1.49 times more likely to have higher tax morale than those who are not democratic at all at the 10% level, holding all other variables constant.

Religion has been confirmed to influence tax morale in the post-dollarization period at the 10% level of significance while being insignificant for dollarized Zimbabwe. Those who are not religious are 52% less likely to be in the higher tax morale category compared to the religious. The result means that being religious increases the willingness of a person to pay taxes, ceteris paribus for post-dollarization Zimbabwe.

All categories of national pride are statistically insignificant to explain tax morale in the post-dollarization period. Conversely, "*quite proud* and *not very proud*", which are categories of national pride during the dollarization period, were positive and statistically significant at a 5 % level of significance. The quite proud and the not very proud were 1.36 and 1.93 times more likely to be in the higher tax morale category than the very proud. The results go against the theoretical predictions which suggest that people with weak pride in their nations have low tax morale. These findings could be as a result of economic stability experienced during the dollarization period such that even people with weak pride of being Zimbabweans were willing to pay tax. Another possible explanation could be that those not proud of their country would then want to pay taxes in order to improve their country, while those who are already very proud are happy with the status quo and see no need to pay more taxes.

The results further indicate that income level is a factor that influenced tax morale in the post-dollarization period at the 10% level but insignificant for the dollarization period. Regression results show that the upper-income class citizens were 25% less likely to be in the higher tax morale category than the middle-class citizens. This means that the upper-class citizen's higher ability to pay taxes does not translate to higher tax morale. The results are in sync with the theory which predicts an ambiguous relationship between tax morale income level. This study argues that the results could be a reflection of the state of the economic situation in the post-dollarization period wherein every individual focussed just on securing basic needs at the expense of tax obligations.

Perceptions of corruption have been found to influence tax morale in both periods. The not justifiable category was significant for dollarized Zimbabwe only, with people in that category being 8.9 times more likely to be in the higher tax morale category compared to those who felt it is somehow justifiable. On the other hand, those who felt that corruption was always justifiable were 40%, 70% less likely to be in the higher tax morale category than those who felt it somehow justifiable for post-dollarization Zimbabwe (5% significance) and dollarized Zimbabwe (1%), respectively. Therefore justifying corruption is associated with low tax morale in both periods while being anti-corruption justifying corruption is associated with higher tax morale for the dollarized period.

Happiness is also a factor that was found to influence tax morale during the dollarization period. The same variable is found insignificant in affecting tax morale in the post-dollarization period. The very happy and not happy at all were 46% and 116% more likely to be in the higher tax morale category than those who are rather happy at the 1% and 5% level of significance, respectively.

Further, the regression results show that awareness is a factor that determines tax morale in both the dollarization and post-dollarization periods for the less than monthly category at 10 % level of significance. The results indicate that people who listen to the radio and get information on what is happening in and outside the country "less than monthly" are 89% more likely to be in the higher tax morale category, relative to weekly, in the post-dollarization period and reduce the same chances by 33% for the dollarization period. Suggestions are that during the dollarization period, when the economy was stable, people focused on savings and investment, given that for the past period they had been de-saving. Accordingly, people used the radio information to know what is required of them and evade taxes.

Likewise, education was statistically significant for both periods, all at the 5% level. For post dollarization, in Zimbabwe, those with primary and secondary level education were 2.49 and 2.42 times more likely to have high tax morale than those with university-level education. In the case of dollarized Zimbabwe, those who learnt up to secondary level were 1.49 times more likely to be in the higher tax morale category than those with tertiary education. The results seem to imply that tax morale is higher among the less educated than the highly educated.

Hunger has also been empirically confirmed to influence tax morale during both the dollarization and post-dollarization periods. For post dollarization Zimbabwe, being sometimes and never hungry increased the odds of having higher tax morale by 1.8 and 1.6 times compared to those who are rarely hungry, respectively. For dollarized Zimbabwe, being often hungry reduced the odds of having high tax morale by 36% per cent compared to those in the rarely hungry category.

The regression results further indicate that trust in Parliament had a statistically significant effect on the level of tax morale in the post-dollarization period, but insignificant for the dollarization period. Those in the not very much category were 41% more likely to have high tax morale than those who trust in parliament quite a lot, at the 10% level of significance. These results contradict with theory as they imply that people are more likely to pay taxes if they do not trust Parliament.

5   Conclusion

It has been established that marital status, democracy, pride, corruption, happiness, awareness, education and hunger were determinants of tax morale during the dollarization period in Zimbabwe, whereas democracy, religion, income, corruption, awareness, education, hunger and trust are determinants of tax morale in the post-dollarization period. It can be noted from this analysis that the factors that determine tax morale during and post-dollarization have changed with changes in the political economy in the country. Based on the findings, policy makers should consider the eradication of corruption and hunger in order to boost tax morale, which in turn improves tax compliance. Also, policy makers should include improvement in the perception of democracy in the mix of enhancement strategies of tax compliance.

This research makes far-reaching contributions to behavioural economics in relation to the factors that influence tax morale in many dimensions. Firstly, to the researcher's knowledge, this is the first study to focus on factors that influence tax morale that include the hunger variable. According to World Vision (2020), hunger is increasing at a shocking rate in Africa. The organisation estimated that in Africa, 20% of the population are experiencing hunger. The inclusion of hunger will assist policymakers, especially in Third World countries to choose a sustainable mix in dealing with the improvement of tax compliance.

Secondly, the study contributes immensely to the body of literature as it is the first to analyse tax morale and its determinants in two different economic set-ups experienced by a developing country. One of the important objectives of the study is that it deduces recommendations that, if undertaken by policymakers, will improve the much-needed tax compliance levels. The major recommendation put forward by the study is that governments should invest in the understanding of tax morale and its determinants. Tax morale is worthwhile to the economy since it lessens the government's expense of financing the public sector. A high level of tax morale means that many people are paying tax, and thus there is an increase in the tax base which can lead to a reduction of tax rates. Low tax rates have the effect of improving the standard of living of the whole populace as disposable income is increased. More so, low tax rates have been proven to diminish financial bonds in the market, thus reducing enforcement and administrative expenses by the government. The spared revenue can be directed to other formative exercises profiting public development and advancement.

The second recommendation is that the tax authorities should intensify tax education and public campaigns to enhance acknowledgement that the payment of tax is a public obligation and commitment of all, as opposed to citizens' perception of it as an oppressive exercise to consume their hard-earned income. To guarantee the accomplishment of raising tax proficiency to the best effect, the study recommends that the tax authorities should adopt the 'catch them young' concept on primary and secondary school pupils, thereby educating them on the importance of complying with tax laws. ZIMRA should also continue to broadcast tax tutorials through their respective websites, social media and radio with wide coverage.

The third recommendation submitted by the study is that the management of corruption and hunger by Third World countries is vital in formulating policies that seek to boost tax compliance. Corruption has a negative impact on public service delivery, which is an important factor that influences citizens' decision to pay tax. Satisfaction with the public service delivery is positively correlated with tax morale, and thus the perception that the tax paid is put to good use motivates citizens to pay tax.

More so, the research suggests that administration arms, namely parliament, the executive and the judiciary should deal with improving trust in them by citizens. The more that residents believe that government officials meet their requirements on the most fundamental level, the more they are willing to pay tax. Moreover, the study additionally suggests that governments should work on building a relationship of trust and participation between taxpayers and tax authorities to evoke the much needed voluntary tax compliance.

The study focused mainly on comparing tax morale in Zimbabwe under the dollarization and post-dollarization eras. Future studies can thus determine the different political changes within the Zimbabwean landscape. The periods which can be included in the study will be before the government of national unity, during the government of national unity (2009-2013), post-GNU, and post-Mugabe era. In this case, studies will be able to see the extent to which the different political establishments affected the tax morale in the context of Zimbabwe.

In future, other studies can look at how the use of technology such as the e-filing system which is used by the Zimbabwean regulator ZIMRA has affected the tax morale of the citizens of Zimbabwe. The use of technology can thereby be used to determine the interaction of technology and economic conditions in the country and how these can jointly affect tax morale in a country like Zimbabwe with a high literacy rate.

Other studies can minimize the methodological weaknesses associated with each method of data collection on the determinants of tax morale. There is therefore a need to fuse the quantitative research approach with an experimental approach such that there is an enrichment of the data on the determinants of tax morale. With the hybrid experimental and quantitative survey approach, there is an increase in the reaching of sound conclusions.

Results of the study showed that there are some factors that show negative or no relationships with tax morale and its determinants. Therefore, future studies need to look at how policies can change the tax morale of the citizens. They need to distinguish between persuasive and enforcement policies in dealing with the country's citizens.

Lastly, the study recommends additional surveys that target the context of African countries better by also focusing more on the interaction between taxpayers and the tax administration, for example, the Taxpayer Opinion Survey done by Torgler et al. 2008.

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