

Trust in government and electronic levy payment decisions in Ghana

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ABSTRACT

Governments in many developing countries have consistently experienced budgetary shortfalls due to several problems, including tax evasion and avoidance. An important social capital identified in the literature that drives an individual's behaviour towards responding positively to taxation is trust. Leveraging on the theory of trust, we disaggregate trust in government into trust in the Legislature, Executive, and Judiciary and investigate the extent to which trust in any of the three arms of government drives behavioural changes towards the decision to pay for the electronic levy in Ghana. Using a survey approach and a regression analysis, we show evidence that trust in any of the three arms of government is a key driver of individuals' decisions to pay for the electronic transaction levy. In order of importance, trust in the Executive explains more of an individual's payment behaviour, followed by the Judiciary, then the Legislature. This study highlights the role of trust in the three arms of government, especially the Executive in committing to the government's tax-related policies.

1. Introduction

Trust is “a psychological state comprising the intention to accept vulnerability based upon positive expectations of the intentions of another” (Rousseau et al., 1998, p.19). In a more recent definition, trust is a particular level of subjective probability with which an agent assesses whether another agent will perform a particular action (Oh & Hong, 2012, p.345). Similarly, Amoah et al. (2017), describe trust as social capital and explain the concept of trust as the faith in government to provide public goods reliably. That is, if the government can honour her promises, trust should be expected; however, failure of the government to honour promises breeds mistrust in the government.

In theory, a person's level of trust in government can form a positive attitude that can influence behaviour (Ajzen & Fishbein, 1977; Ali et al., 2014). Through individual behavioural changes, trust in the government can incentivize taxpayers to respond favourably to their tax obligations and shun possible tax evasion (Oh & Hong, 2012). Increasing commitment to tax contributions correlates with tax revenue mobilisation and the deployment of government funds to influence macroeconomic and economic growth outcomes. Thus, trust promotes higher levels of economic growth and development, and economies in nations with strong governance and high levels of public trust experience fewer severe business cycles (Varvarigos & Xin, 2015; Bursian et al., 2015).

Generally, countries rely on tax and non-tax revenue sources to finance public expenditures. The revenue needed to finance infrastructure, such as roads, railways, schools, and hospitals, among other amenities, depends on the country's capacity to collect taxes. In Africa, one of the major challenges facing governments is the ability to meet their numerous expenditures within a freer fiscal space. So, African governments have resorted to the imposition of taxes as a means of freeing fiscal space (Ali et al., 2014). Unfortunately, revenue mobilization through tax imposition has been undermined by tax avoidance and evasion (IMF, 2011; Ali et al., 2014). To reduce tax avoidance and evasion, some level of trust is required. Empirically, trust, which is a social capital has been identified as a determinant of tax compliance in Africa (Ali et al., 2014; Amoah et al., 2017). However, the level of trust in most governments in Africa has generally been low, primarily because of failed promises (Amoah et al., 2017). This has motivated studies to investigate the relationship between trust in government and payment for public goods (Amoah et al., 2017).

In Ghana, road toll revenue has contributed to government revenue. However, in 2022, the government announced the cancellation of road tolls in Ghana. A key argument for the cancellation is that collecting tolls causes more harm than benefit, so all 37 tolls across the nation were eliminated (Ahinsah-Wobil, 2022). This cancellation was in anticipation of a novel electronic tax system popularly known as electronic

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tax or levy (e-levy or e-tax). With the expectation that the e-levy would broaden the tax base and accumulate more revenue to finance government expenditures, it was considered a better replacement for the road toll tax. The government initially proposed a tax rate of 1.75%, which was adjusted downwards to 1.5% and subsequently to 1% on all daily electronic transactions exceeding Ghs 100.00 (US\$ 12.00) made by individuals, businesses, and organisations. Many Ghanaians had conflicting feelings about the tax's appropriateness and what it would mean for the country's digitization strategy when it was announced in November 2021 during the 2022 budget presentation by the Minister of Finance. The e-levy tax idea seemed to have been strongly opposed to the extent that its implementation had to be put on hold from the originally planned date of January 1, 2022, until the 1st of May 2022. This generated a lot of mixed reactions simply because Ghanaians were unsure whether the additional tax would be put to good use. Thus, the level of trust in the government with regard to the use of tax revenue raises concerns that border on evasion and avoidance of tax compliance. In this study, we examine whether citizens' trust in the three arms of government could affect the payment of the e-levy or otherwise. The question that the present study seeks to address is whether trust in the three arms of government can affect individuals' decisions to pay the e-levy or otherwise.

The present study adds to the literature on governance in the public sector by ranking the level of trust in government. The study further disaggregates the three arms of government to ascertain the extent to which each arm of government is independently ranked as a measure of trust in government. Trust in the Judiciary ranked highest, while trust in the Executive ranked lowest. Again, the study found that the level of trust in the three arms independently contributes to households decision to pay the e-levy or otherwise. In effect, trust in any of the three arms of government is a significant determinant of the respondent's propensity to pay the e-levy. For robustness, the aggregated measure of trust produced results that corroborates earlier findings. Further, heterogeneous analysis also shows consistent results across gender, however, males exhibit a relatively lower propensity to pay for the e-levy.

The rest of the study is structured as follows: [Section 2](#) reviews relevant literature in the subject area, the methodology is outlined in [Section 3](#); the findings and discussion of the results are presented in [Section 4](#), and the conclusion of the study is in [Section 5](#).

2. Literature review

Trust-as-heuristic theory sheds light on how lack of trust in government affect the way citizens support government intervention. This theory suggests that people utilize a simple decision rule to determine whether to support a government initiative or not ([Hetherington, 2005](#)). The implication is that people will support government activity when they believe the government is trustworthy, but they will not do so if the reverse is true ([Rudolph, 2009](#)). Increased taxpayer compliance is one possible benefit that trust in a government may bring about for that government. Apart from economic factors that influence tax compliance, [Hofmann et al. \(2014\)](#), show that sociological and psychological factors including trust are also relevant determinants for tax compliance.

In line with the theory of trust, several empirical studies have examined the relationship between trust and leadership ([Mishra & Mishra, 2013](#); [Cao & Le, 2022](#); [Eluwole et al., 2022](#)); trust and health ([Guerrero et al., 2015](#); [Baker, 2020](#)); trust and education ([Oskarsson et al., 2017](#); [Volchik & Maslyukova, 2019](#); [Kołczyńska, 2020](#)) and trust and tax compliance ([Armah-Attoh & Awal, 2013](#); [Badu & Chariye, 2015](#); [Masud et al., 2021](#)). Empirical investigations into the link between trust in government and tax morale have been conducted in Africa ([Armah-Attoh & Awal, 2013](#); [Badu & Chariye, 2015](#); [Masud et al., 2021](#)). Another strand of the literature has analysed the attitudes of citizens towards taxation ([Ali et al., 2014](#)) and the determinants of tax compliance in Africa ([Levi et al., 2009](#); [Cummings et al., 2009](#); [Sacks, 2012](#); [Daude et al., 2013](#)). For instance, using data from the 2011–

2012 Afrobarometer survey, [Ali et al. \(2014\)](#), examined the attitudes of people in Kenya, Tanzania, Uganda, and South Africa toward tax payment. The authors found a significant relationship between tax compliance attitudes in the four nations and the delivery of public services. [Daude et al. \(2013\)](#), also analysed the determinants of tax compliance in five African economies: Ghana, Kenya, South Africa, Tanzania, and Uganda. The authors revealed that high-quality public services boost tax compliance and reduce the justification for tax evasion.

[Cummings et al. \(2009\)](#), examined whether cross-cultural differences can explain tax compliance behaviour in Botswana and South Africa. The study revealed that people in Botswana are more tax compliant than those in South Africa, partly because they believe their government is more trustworthy.

There exist a plethora of studies that have shown that the trust of citizens, particularly in tax authorities, is key in influencing tax compliance, which is also contingent on the level and quality of public goods provided by the government ([Slemrod, 2007](#); [Armah-Attoh & Awal, 2013](#); [Habibov et al., 2018](#); [Bwalya, 2020](#)). For instance, [Armah-Attoh and Awal \(2013\)](#), examined how tax compliance behaviour is affected by trust in institutions in Ghana. The authors found that tax officials are corrupt and citizens lack trust in the government revenue authority. [Siglé et al. \(2018\)](#), claim that the power of tax authorities to detect and punish tax non-compliance, in addition to the perceived trust in the tax authorities positively influence tax compliance. [Picur and Riahi-Belkaoui \(2006\)](#), found that tax compliance is higher in developing countries with low corruption and bureaucracy.

[Habibov et al. \(2018\)](#), also examined how institutional trust affects willingness to increase taxes to support public health care and education. The authors demonstrated that institutional trust has a significant impact on the willingness to pay more tax, regardless of the empirical methodology used. In particular, they established that a one-unit increase in institutional trust causes a 15% rise in readiness to pay for charitable donations. Additionally, a one-unit rise in institutional trust results in a 16-percentage point increase in tax-payer willingness to support public health and education. Similarly, [Bwalya \(2020\)](#) analysed the extent to which individual and nation-level characteristics affect the willingness to pay extra taxes to support health care in member states of the Southern African Development Community. Using a regression analysis of data from the Afrobarometer survey, the study demonstrated that fostering public trust is crucial for increasing willingness to pay tax.

[Badu and Chariye \(2015\)](#), showed that trust in the legal system and government is positively connected with tax morale in their study on the impact of taxpayers' opinions about the legal system and government on tax morale in Ethiopia. [Kinyondo and Byaro \(2019\)](#), also investigated how trust in the government affected Tanzanians' willingness to pay taxes for public goods and services. By using the logit model and the chi-square test, the authors discovered that trust in government is essential for encouraging willingness to pay taxes to fund public goods and services. Only 43.5% of the citizens expressed satisfaction with the government's provision of public goods and services, indicating that a larger number of the population was dissatisfied and hence unwilling to pay taxes to improve the provision of public goods and services. [Amoah et al. \(2017\)](#), investigated how trust impacts Ghana's payment for reliable electricity supply. The authors showed that those who trust the government are willing to pay the same rate or not to pay more for improved energy supply, whereas others who don't trust the government or who might think the private sector could provide better service have shown they are willing to pay more. It has been argued that if households see the private sector as more efficient relative to the public sector, then they would not mind trading off much to the private sector to increase their well-being. [Masud et al. \(2021\)](#), also examined how trust in government affects tax compliance in Africa. Using cross-country data from 38 countries and the ordinary least squares regression model, the authors found that accountability, political stability, control of corruption, and trust have a significant influence on tax compliance,

but government effectiveness, regulatory quality, and the rule of law have an insignificant influence on tax compliance.

In the study of Ariel (2011), the days of using regulators and the use of power to ensure tax compliance are gradually giving way to the current trend of using trust-based strategy and moral suasion to achieve tax compliance. Another piece of evidence shows that many regulators are changing their tax compliance regime to a more cooperative compliance approach that is hinged more on trust (Kirchler et al., 2014). Nonetheless, a mix of the two tax compliance strategies by the regulator would achieve optimal tax compliance; implying that the choice of the strategy would largely depend on the taxpayers’ behaviour.

From this literature review, scores of studies have examined the effect of trust in institutions on tax compliance in Africa, but virtually no study specifically examines the effect of trust on the payment of the e-levy. In contrast to previous studies that have focused on aggregated trust measures, this study introduces a unique approach by disaggregating trust based on the specific branches of government. Additionally, a significant contribution of this study lies in its empirical examination of the relationship between disaggregated trust and individuals’ decisions regarding electronic levy payments. Moreover, many existing studies have overlooked the importance of considering country revenue needs and revenue alternatives as crucial control variables. This oversight creates a notable gap that we aim to address, allowing us to analyse the potential substitution effect in our research.

2.1. Conceptual framework

According to Torgler (2007), a taxpayer’s relationship with the government, particularly their level of the trust reposed, should be taken into account when analyzing voluntary tax compliance. Indeed, “trust is a strong predictor of an individual’s behaviour and actions” (Shanka and Menebo, 2022, p.1276). Consistent with the theoretical underpinning, trust in the arms of government by individuals (or household members) is a precursor to financial commitment to a government policy or programme; the opposite is also true. This concept is illustrated in Fig. 1.

Conceptually, Fig. 1, is the conceptual framework on governance, trust, and individual tax-paying decision. We show, based on the theory of trust, that there is a link between trust in the three arms of government by its citizenry and an individual’s decision to pay or not to pay tax, herein the e-levy. State governance is the process by which decisions are made and applied in a pragmatic way to the benefit of society. Ultimately, every society expects that its government will live up to its commitments and provide an empowering environment that contributes to the growth of the nation and the welfare of all citizens.

The lack of trust in government machinery will lead to the shirking of households’ commitment to the payment of taxes. Households will be unwilling to pay the e-levy tax by either cleverly avoiding the

payment of the levy or exploiting the loopholes in the e-levy tax act to avoid the payment of the levy. Pervasively, households will not commit to communal activities. Furthermore, according to the empirical literature on the theory of trust, taxpayers will only support government revenue-enhancing policies when the government is trustworthy. In addition, there are sociological and psychological factors that influence the trust that the citizenry has in the government which leads to tax compliance or non-compliance. These are reflected in the household trust and household non-trust decisions presented in Fig. 1.

3. Material and method

3.1. Data

This study draws on quantitative data obtained from a representative Google online form survey of 2,810 individuals from all sixteen regions of Ghana. Specifically, the main survey preceded a pilot survey, and commenced from February 9 to February 16, 2022. This data collection period preceded Tuesday, March 29, 2022, when the e-levy was passed into law by the Parliament of Ghana. The sample was constructed using the snowball sampling technique. First, the researchers identified people in their virtual networks and shared the survey instrument with them. They were encouraged to willingly complete and share the same with their virtual networks. This process continued until the last person was recorded on the last day. Although this process is not a probability sampling approach, the responses show well-spread demographics and lend credence to the generality of the sample. It is important to acknowledge that generality based on a representative spread provides a cure for a possible network effect commonly associated with such a non-probability snowball sampling technique. The main reason why the snowball came in handy and was ideal for the purpose was the swiftness with which responses across the nation were needed to inform decisions regarding the debate on the bill that had been laid before the Legislature. The unit of analysis is any legal permanent resident of Ghana who uses or intends to use any electronic services for transactions in Ghana and is willing to participate in the survey.

The two main sections of the survey focused primarily on knowledge and trust about e-levy-related questions, together with demographic information about the respondent. All respondents obtained the right to either participate in the survey or otherwise. No respondent participated under compulsion. Furthermore, assuming a respondent gave his consent to participate in the survey and later decided to withdraw his or her consent or skipped a question, the survey made it possible. Ethically, the study solicits information that bothers perception and does not present a threat to participants, anybody or any animal whatsoever. Again, this is not a natural science experiment, but a social science perception investigation, so it passes any standard ethical clearance requirement.

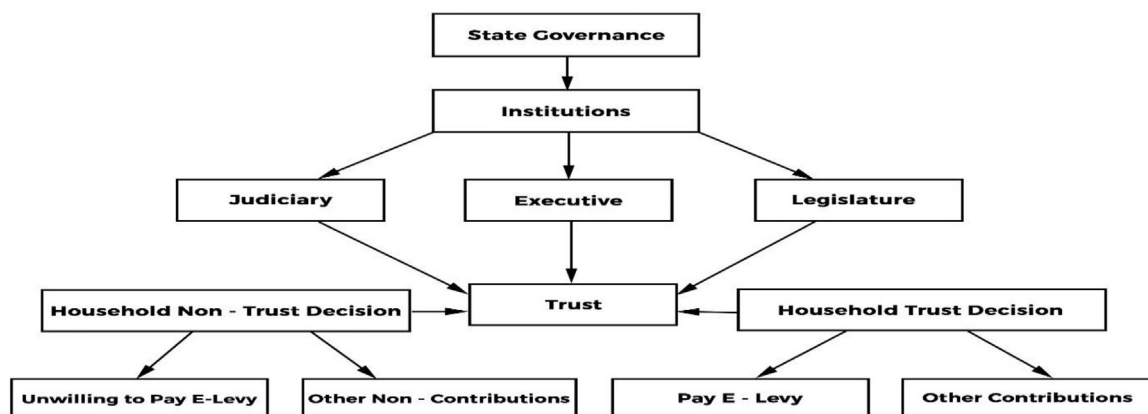


Fig. 1. Conceptual framework on governance, trust and individual decisions.

Table 1
Variable description and measurement.

Variables	Description	Measurement
<i>Outcome Variable:</i> Pay/Otherwise	Decision to Pay for the e-levy=1, No decision to pay for the e-levy=0	Binary (Dummy) Indicator
<i>Variables of Interest: Trust in any of the three arms of Government (Judiciary, Legislature, Executive)</i>		
<ul style="list-style-type: none"> Trust in the Judiciary Trust in the Legislature Trust in the Executive 	<ul style="list-style-type: none"> Trust in the Judiciary=1, Otherwise=0 Trust in the Legislature=1, Otherwise=0 Trust in the Executive=1, Otherwise=0 	Binary (Dummy) Indicators
<i>Other Control Variables</i>		
<ul style="list-style-type: none"> Age Income Marital status Schooling Revenue needs Alternatives 	<ul style="list-style-type: none"> Age of the respondent in years Income of respondent in Ghana cedis (Ghs) Married= 1, Unmarried =0 Years of schooling Ghana's revenue needs perception Existence of alternatives to e-levy perception 	<ul style="list-style-type: none"> Years (Continuous) Ghana cedis (Continuous) Binary (Dummy) Indicator Years (Continuous) Binary (Dummy) Indicator Binary (Dummy) Indicator

Source: Authors' construct.

The survey instrument (i.e., self-administered questionnaire) used, was designed to automatically collate all responses into a Microsoft Excel format. In addition, the instrument presented a pictorial descriptive analysis of the data, which was used for the various policy engagements. All other analyses were executed with the aid of STATA 15. So far, it can be argued that the survey obtained a very high response rate of about 95%, which is unlike most online surveys conducted in Ghana to the best of our knowledge. We posit that the high response rate could be attributed to the topical nature of the e-levy and residents' responses to it. The associated descriptive statistics are presented in Section Table 2.

3.2. Empirical estimation

To examine the nexus between trust in the three main arms of government and the decision by individuals to pay for the e-levy, we follow Amoah et al. (2018) and code all Yes's as 1 and all No's as 0 yielding a binary series for all three institutions of government. Similarly, those who indicated they would pay for the e-levy (*irrespective of the amount*) were coded as 1, while those who objected to paying for the e-levy were coded as 0. We further specify a probit model (see Eq. (1)) to indicate the probability of paying for the e-levy or otherwise as a function of a vector of trust in government (trust) and relevant controls such as age, income, marital status, schooling (or education), revenue needs of the country (Knowledge of needed revenue by government to meet expenditure), use of any other electronic banking services alternative to the e-levy, and regional dummies (Refer to Table 1 for detailed description and measurement of variables). The choice of variables is motivated by the theoretical and/or empirical literature.

$$P(\text{Payment Choice } [y] = 1 | X) = f(\beta_0 + \beta_1 \text{Trust} + \beta_2 \text{Controls}) \quad (1)$$

Table 2
Descriptive statistics.

Stats	Decision to Pay	Judiciary*	Legislature*	Executive*	Age	Married	Revenue Needs	Alternatives	Schooling	Income
Mean	0.53	0.17	0.13	0.10	35.87	0.68	0.64	0.93	16.43	3189.98
Median	1	0	0	0	34	1	1	1	16	2300
SD	0.50	0.38	0.34	0.30	10.02	0.47	0.48	0.25	2.23	2810.33
Skewness	-0.14	1.71	2.16	2.65	0.75	-0.77	-0.57	-3.44	-4.26	1.21
Kurtosis	1.02	3.93	5.65	8.01	3.89	1.60	1.33	12.86	29.93	3.39
Min	0	0	0	0	18	0	0	0	0	203
Max	1	1	1	1	75	1	1	1	18	10000
N	2678	2810	2810	2810	2810	2810	2810	2810	2750	2601

* Trust Scores: 0.00-0.29=Very Low, 0.21-0.49=Low, 0.50-0.69=Medium, 0.70-0.89=High, 0.90-1.00= Very High

The log-likelihood function of the probit model as specified in Eq. (1) is also specified as:

$$\text{Log}L = \left[\sum_{i=1}^n y_i \ln(\Phi(\beta_0 + \beta_0 X_i)) + (1 - y_i) \ln(1 - \Phi(\beta_0 + \beta_1 X_i)) \right] \quad (2)$$

Generally, we expect the coefficient of the probit model to be different from the marginal effects, so we present the marginal effect equation of the probit model as

$$\frac{\partial E(y_i | x_i)}{\partial x_i} = \left\{ \frac{\partial F[\beta' x_i]}{(\beta' x_i)} \right\} \beta_i \quad (3)$$

4. Results and discussion

From the descriptive statistics in Table 2, the mean value of the decision to pay for the e-levy is 53 percent. Quantitatively, this exceeds the 35 percent of respondents who are in favour of paying an increase in taxes from the Afrobarometer round six poll, as reported in Adisah-Atta (2017). This statistic should provide some comfort to the government of Ghana and its revenue mobilisation agency in that if the right amount is charged, the e-levy will accumulate additional revenue and provide the needed fiscal space as there is a high percentage of users of mobile money who are prepared to pay for the e-levy.

Again, an overview of responses about trust in government shows that none of the measures of trust in government score up to 0.2 (i.e., 20%), suggesting that overall, respondents who have trust in the government are averagely very low (i.e., 13%). About 17 percent of respondents trust in the judiciary, compared to 13 percent of our sample who trust the legislative arm of government. In all instances, the level of trust in these arms of government is very low among potential e-levy payers.

Table 3
Trust in the arms of government and the decision to pay for the e-levy.

VARIABLES	(1) Probit Model	Average Marginal Effects	(2) Probit Model	Average Marginal Effects	(3) Probit Model	Average Marginal Effects	(4) Probit Model	Average Marginal Effects
Trust in the Judiciary	1.0376*** (0.077)	0.3786*** (0.025)					0.6129*** (0.095)	0.2125*** (0.032)
Trust in the Legislature			0.3425*** (0.074)	0.1322*** (0.028)			0.2685*** (0.097)	0.0931*** (0.033)
Trust in the Executive					1.4966*** (0.124)	0.5473*** (0.042)	1.0559*** (0.148)	0.3661*** (0.050)
Age in Years							-0.0067** (0.003)	-0.0023** (0.001)
Marital Status							-0.1243* (0.065)	-0.0431* (0.023)
Country Revenue Needs							0.4073*** (0.057)	0.1412*** (0.019)
Revenue Alternatives							-0.5560*** (0.143)	-0.1928*** (0.049)
Years Spent Schooling							-0.0047 (0.014)	-0.0016 (0.005)
Income (log)							0.0196 (0.031)	0.0068 (0.011)
Constant	-0.4349** (0.203)		-0.3268* (0.196)		-0.4189** (0.201)		-0.2052 (0.450)	
Regional Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Wald chi2	247.08***		95.89***		214.36***		356.06***	
Pseudo R2	0.0771		0.0265		0.0759		0.1195	
Observations	2,678	2,678	2,678	2,678	2,678	2,678	2,477	2,477

Dependent Variable: Decision to pay for the e-levy or otherwise.

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

The arm of government that scored the lowest level of trust is the executive, which is 10 percent of our sample. This result of a low level of trust in the arms of government is buttressed by the evidence in Oh & Hong (2021), which shows that in economies where there is a low level of trust in government, individuals tend to shun the payment of taxes. This is a precursor that the e-levy would rake in very little revenue than anticipated. The range of ages of the respondents was between 18 and 75 years, with a mean age of 36 years, with about 68% of the sample being married. The income ranges from Gh¢ 203 to Gh¢10, 000 per month, with an average monthly income of Gh¢ 3,189.98. This average income is higher than the Gh¢ 2,594.00 reported for public sector workers in the Earnings Inequality in the Public Sector, GSS (2022).

In addition, from Table 2, 64 percent of respondents do agree that the government of Ghana needs to increase its revenue. Those who use other electronic platforms (e.g., internet or online banking, automatic teller machines, mobile banking, PayPal, etc.) for their transactions as well as the mobile money electronic platform constitute about 93 percent of respondents. The average duration of schooling amounts to approximately 16 years. This is of particular significance given the data from the Ghana Statistical GSS Population and Housing Census (2021), which indicates that Ghana has a relatively high population of 8 million adults who are illiterate when compared to other lower middle-income and sub-Saharan African countries¹.

The probit regression results in Table 3, provide a breakdown of the factors that influence the decision to pay for the e-levy or otherwise. All interpretations are based on the marginal effects of the probit model and not the coefficients of the probit model itself. To commence with the interpretations, we first estimated the variables of interest without controls. We show evidence that without the controls, a unit increase in trust in the judiciary increases the decision to pay for the e-levy by 0.3786. Similarly, a unit increase in trust in the legislature increases the decision to pay for the e-levy by 0.1322. Furthermore, a unit increase in trust in the executive arm of government leads to a 0.5473 decision to pay for the e-levy. This finding of a positive relationship between trust in the executive arm of government and the decision to pay for the e-

levy contradicts the view held by Amoah et al. (2017) that those who trust the government are willing to pay less for the provision of a public good.

In Table 3, column 4, we assume that all other factors are held constant in the interpretation of results. In this regard, a unit increase in trust in the judiciary results in a 0.2125 increase in the decision to pay for the e-levy. The response to a unit change in trust in the legislature and the executive results in a 0.0931 and 0.3661 increase in the decision to pay for the e-levy, respectively. This finding on trust in the legislature aligns with the view of Badu and Chariye (2015), that trust in the legislature and judiciary is positive to the moral to pay tax and by extension to this work, to pay for the e-levy. Comparing our findings on trust in the judiciary from our study and the decision to pay for the e-levy contradicts those of Masud et al. (2021), who hold the view that regulatory quality has an insignificant influence on tax compliance.

The other variables that exhibit a negative relationship with the decision to pay for the e-levy are age, marital status, and revenue alternatives. There is evidence from the results contained in Table 3, that a unit increase in each of these variables results in a decrease in the decision to pay for the e-levy by 0.0023, 0.0431, and 0.1928 with respect to age, marital status and government revenue alternatives. About the country's revenue needs, the results in Table 3, show that a unit increase in the revenue needs of the country increases the decision to pay for the e-levy by 0.1412. There is evidence in the results presented in Table 3 column 8is that trust in all three arms of government, exhibit a positive relation in deciding the decision to pay for the e-levy, our evidence on trust is comparable to Kinyondo and Byaro (2019) who posit trust in government affects the willingness of citizens to pay taxes for public goods and services. A similar finding also exists in Torgler (2007) that trust in government matters in the area of voluntary tax compliance. Finally, the statement by Cummings et al (2009) that people turn to pay taxes when they trust their government is affirmed by this study.

For the robustness of our results, we generated an index of the three arms of government. The evidence in Table 4 column 3, does not deviate from the results in Table 3, thus lending credence to the robustness of the results. The binary trust index developed to capture trust in the three arms of government is statistically significant in explaining the decision to pay for the e-levy or otherwise in the models with controls and those

¹ www.census2021.statsghana.gov.gh.

Table 4
Aggregate trust in government and the decision to pay for the e-levy.

VARIABLES	(1) Probit	Average Marginal Effects	(2) Probit	Average Marginal Effects
Aggregate Trust in Government	1.3475*** (0.160)	0.5091*** (0.059)	1.1998*** (0.163)	0.4331*** (0.057)
Age in Years			-0.0071** (0.003)	-0.0026** (0.001)
Marital Status			-0.1229* (0.064)	-0.0444* (0.023)
Country Revenue Needs			0.4842*** (0.055)	0.1748*** (0.019)
Revenue Alternatives			-0.7175*** (0.138)	-0.2590*** (0.049)
Years Spent Schooling			-0.0061 (0.014)	-0.0022 (0.005)
Income (log)			0.0303 (0.031)	0.0109 (0.011)
Constant	-0.3235 (0.198)		-0.0393 (0.436)	
<i>Regional Fixed Effects</i>	Yes	Yes	Yes	Yes
Wald chi2	139.74***			263.49***
Pseudo R2	0.0467			0.0853
Observations	2,678	2,678	2,477	2,477

Dependent Variable: Decision to pay for the e-levy or otherwise.
Robust standard errors in parentheses, *** p<0.01, ** p<0.05, * p<0.1

Table 5
Aggregate trust in government and Decision to pay for the e-levy.

VARIABLES	(1) Male	Average Marginal Effects	(2) Male	Average Marginal Effects	(3) Female	Average Marginal Effects	(4) Female	Average Marginal Effects
Aggregate Trust in Government	1.3224*** (0.174)	0.4994*** (0.063)	1.1463*** (0.176)	0.4113*** (0.062)	1.5677*** (0.459)	0.5774*** (0.166)	1.5166*** (0.454)	0.5297*** (0.157)
Controls	No	No	Yes	Yes	No	No	Yes	Yes
Constant	-0.3939* (0.233)		-0.0611 (0.501)		-0.1142 (0.379)		0.7716 (0.991)	
Wald chi2	114.84***		223.01***		26.43**		59.49***	
Pseudo R2	0.0499		0.0932		0.0431		0.0827	
Observations	2,013	2,013	1,882	1,882	637	637	572	572

Dep Variable: Decision to pay for the e-levy or Otherwise
Robust standard errors in parentheses, *** p<0.01, ** p<0.05, * p<0.1

without controls. Further, it is important to acknowledge that our results are based on the marginal effects of Table 4 column 4 because of its relative fitness. We infer from Table 4 column 4 that, a unit increase in the level of trust in government leads to an increase in the probability of the decision to pay for the e-levy by 0.433 all other things being equal. As Hofmann et al. (2014) avers, economic factors are not the only determinants of tax compliance. Indeed, from the results, an increase in the age of the respondent by one year implies that the decision to pay for the e-levy declines by 0.0026. The case for marital status shows a decrease of 0.0444 in the decision to pay for the e-levy or otherwise. Regarding views about the country’s revenue needs, a unit increase in government revenue results in an increase in the decision to pay for the e-levy by 0.1748. Again, the existence of alternative revenue options for the government decreases the decision to pay for the e-levy by 0.2590, as per the results presented in Table 3 column four.

In Table 5, the gender dynamics is considered, this is important considering the fact the Ghana Population and Housing Census 2021 report shows that females make up 50.7 percent and males make up 49.3 percent of the Ghanaian population. This structure of the Ghanaian population is key to understanding how trust in the arms of the government can influence the decision to pay for the e-levy or not. Just like the earlier models, we focus on the marginal effects. From column 2, we assume a model without the relevant controls and show that a unit increase in the aggregate trust in the three arms of government has a positive relationship with the decision to pay for the e-levy by 0.4994, keeping other factors equal. As earlier indicated, this finding on combined trust is similar to Habibov et al. (2018) that institutional trust has a statisti-

cally significant impact on the decision to pay for the tax. Furthermore, we assume a model with relevant controls and argue that being a male, as shown in column 4 of Table 5 increases the decision to pay for the e-levy by 0.4113, all else held constant. With females, in Table 5, column 6, a unit increase taken together trust in the three arms of government results in an increase in the decision to pay for the e-levy by 0.5774, holding other variables constant. Similarly, in Table 5, last column, the decision to pay for the e-levy increases by 0.5297 holding other variables constant. In all the probit regression estimates in Table 5, the models are statistically significant in explaining the decision to pay for the e-levy or otherwise per the Wald chi 2 value of 114.84, 223.01, 26.43, and 54.49, respectively.

5. Conclusion and policy recommendation

Generally, from empirical evidence, no country can develop without the imposition of taxes to mobilise national revenue. How trust influences the payment of tax and the e-levy in Ghana is very much the same in all countries when it comes to citizens’ decisions to pay tax. The evidence in this paper on Ghana is that trust in government is very important in an individual’s decision to pay tax and to pay the e-levy in particular. The findings in this paper show that trust in the Legislature, trust in the Judiciary, and trust in the Executive have a positive and statistically significant relationship with the decision to pay for the e-levy in Ghana. Furthermore, trust in the Executive has the highest probability of influencing individuals to e-levy among mobile money users in Ghana.

By way of policy recommendations, the study presents useful implications for governments that have already implemented the e-levy as well as those that are yet to implement it. One cardinal disposition for its citizens' decision to pay or not to pay is how the arms of government, and most importantly, the executive arm of government, behave, that may evoke trust among its taxpayers. In this situation, trust-enhancing behaviours such as transparency in the usage of tax revenue, sticking to the intended purpose of tax revenue, and being consistent in the timing of releasing information about tax revenues should be the most important response that the government provides in the imposition and administration of an indirect tax like the e-levy. These behaviours are critical if the e-levy tax handle is to prove successful in mobilising the desired revenue for governments. A demonstration of a high level of trust is key. Just as Amoah et al. (2020) have shown that corruption level in Africa is high, governments in the region must eschew corruption and punish corrupt and wasteful government officials so that taxpayers will repose their trust in them and embrace tax payments. The government should not be surprised if its revenue target from tax handles such as the e-levy is not achieved, especially in an environment of citizen distrust in the government.

Furthermore, public education in the languages that the citizenry understands on the e-levy or similar tax by the state revenue-mobilising agency is important if the government is to get its citizens to understand the tax, the need for it, and commit to paying such tax. Another issue is that the government should be prepared in advance for how to respond to individuals or groups of individuals, who raise legitimate concerns about such taxes. This is important for a consumption tax such as the e-levy on financial services like mobile money, which has many substitutes. Further studies should consider issues of trust from the perspective of small and large corporate entities and how trust would influence their decision to pay or not to pay indirect taxes such as the e-levy.

Declaration of Competing Interest

We the authors declare that there is no conflict of interest on our part.

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