TAXATION AND THE SURVIVAL OF SMALL-SCALE ENTERPRISES IN ILORIN SOUTH, KWARA STATE, NIGERIA

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Abstract

Small-scale enterprises (SSEs) are a primary means of economic survival for many individuals in both rural and urban areas. However, their medium to long-term survival is often adversely affected by various factors, particularly those related to finance. This study investigates the impact of taxation on the survival of small-scale enterprises in Ilorin South using a survey research approach. 196 questionnaires were distributed within four commercial clusters of the target area with 179 (91.33%)retrieved. Descriptive statistics and ordered probit regression techniques were employed to analyse the data. The findings show that tax compliance frequency, the convenience of available tax payment channels, and the ease of covering running costs within the business environment were discovered to be crucial to the survival of SSEs.

Introduction

Small-scale enterprises are the sole means of economic survival, employment and poverty alleviation for many rural and urban dwellers (Obi, 2015). Their heterogeneous nature and operational sizes offer them a strategic advantage in meeting demands in immediate and remote markets. Hence, small-scale enterprises are the driving force behind many innovations and contributions to the growth of the national economy through employment creation, investments, and exports (Akugri et al.,2015). They also have a significant impact in the areas of utilisation of local raw materials, amplification of rural development, mobilisation of local savings, linkages with more prominent industries, provision of regional balance by spreading investments more evenly, provision of avenues for self-employment and opportunity for training managers and semi-skilled workers (Muritala et al., 2012). According to PricewaterhouseCoopers International Limited [PwC] (2020, 2024) the sector, no doubt, has been crucial to Nigeria's growth and poverty level reduction.

Small- and medium-scale enterprises (SMEs) contribute nearly 50 per cent of Nigeria's GDP and over 80 per cent of its employment level (SMEDAN-NBS, 2017). Unfortunately, the sector continues to be weighed down with challenges which ultimately impact the nation's growth (PwC, 2024). For example, Awodun (2017) noted that about 70 per cent of SMEs in Nigeria die within their first five years of existence. Also, Saibu and Bello (2019) found that the survival rate of small-scale enterprises in Lagos is 42.2 per cent. However, this trend is not limited to Nigeria. For instance, McKenzie and Paffhausen (2017) noted that in developing countries, small-scale

enterprises generally die at an average rate of 8.3 per cent per annum, and about 50 per cent of their total population at any point in time die within every six years. Similarly, from the global perspective, Lum (2017) projected that most start-up small-scale enterprises do not survive beyond their first five years of operation.

One of the reasons adduced for the short life span of SSEs is excessive tax. Several studies found that the SSEs are often subjected to unfair tax rates, multiple taxes and complex tax regulations, with inadequate public enlightenment on tax-related matters (Adebisi&Gbegi, 2013; Agu et al., 2019; Inim et al., 2020; Ocheni&Gemade, 2015; Ojeka, 2011; PwC, 2020, 2024; Usmana, 2017). SMEDAN-NBS (2017) also identified exorbitant taxes as the most significant challenge to Nigerian enterprises followed by unfavourable government policy. Remarkably, most of the related empirical studies in Nigeria have focused on the relationship between taxation and the performance or growth of SSEs (see for example, Agu et al., 2019; Inim et al., 2020; Ojeka, 2011) with little or no attention to their survival. This study addresses this gap, by examining the impact of taxation on the survival of SSEs in the Ilorin South area of Kwara State, Nigeria. Ilorin is the capital of Kwara State, located in the North Central region of Nigeria. Kwarawas the first in the region to overhaul its tax administration with the establishment, in 2015, of the Kwara State Internal Revenue Service (KW-IRS), a semi-autonomous agency charged with the responsibility for collection of all revenues due to the state (KW-IRS, 2017). Hence, one of its statutory mandates is to improve tax revenue generation from SSEs, particularly, in the informal economic sector of the state (KW-IRS, 2016).

To this end, the broad objective of this study is to investigate the impact of taxation on the survival of small-scale enterprises in Ilorin South. The specific objectives are to examine (i)the impact of tax compliance on the survival of small-scale enterprises in Ilorin South, (ii) the impact of KW-IRS's tax payment channels and deadline on the survival of small-scale enterprises in Ilorin South, and (iii) the impact of other economic factors on the survival of small-scale enterprises in Ilorin South.

The current section provides the introduction. The remaining part of the paper is structured as follows: Section 2 contains a review of related literature; Section 3 outlines the methodology; Section 4 deals with the data analysis and results. The conclusion is contained in the last section.

Review of Related Literature

Conceptual review

Small-scale enterprise

Gale and Brown (2013) defined a small-scale enterprise as one with $7 million average annual net receipts in the immediate three years or one with less than 500 employees on average during the past twelve months, depending on industry characteristics. As well, the Washington State's Departments of Community, Trade and Economic Development, Employment Security, Labour and Industries, and Revenue (2007) defined a small-scale enterprise as one which, first, employs twenty or fewer employees or is a non-employer.

Mungaya et al. (2012) categorised small-scale enterprises in Tanzania as one with between five to 49 employees and capital investment in types of machinery of between five to 200 million Tanzanian shillings. Further, Sebikari (2014) defined small-scale enterprises in Uganda as one that employs between one to 50 persons and has an annual turnover of up to 360 million Ugandan shillings. Furthermore, according to Ameyaw et al. (2016), the Ghana Statistical Service regards firms with less than ten employees as small-scale enterprises.

In the case of Nigeria, Adisa et al. (2014) captured Nigeria's small-scale enterprises' basic geographic and economic features to define them as enterprises' whose starting and operating

capitals are between 25 thousand naira and two million naira. Notably, considering the economic configuration of KwaraState and for presumptive taxation, the Kwara State Internal Revenue Service [KW-IRS] (2016, p.49) defined small-scale enterprises as any trade that will not ordinarily be regarded as very small or very big, and not formally registered.

The considered institutional guidelines and empirical perspectives indicate that, conventionally, the definitions of small-scale enterprises are arbitrary and mostly subjective. The definitions differ by time, the economic buoyance of location, industry, potential gross output, number of employees, net worth, and the objective in focus. Therefore, the definitions provided by Adisa et al. (2014), the KW-IRS (2016), Ameyaw et al. (2016) coupled with the classification of KwaraState as a lower-middle-income economy by the World Bank Group (2018) provide the fabrics for a suitable operational definition for this study.

In this light, a small-scale enterprise can be defined as any revenue-generating enterprise that will not ordinarily be regarded as very small or very big, formally registered or not, and whose starting and operating capitals are between 25 thousand and two million naira. That is, all enterprises (excluding charity organisations) that function in an enclosed space, be it a corner shop or a shopping mall, are independently owned and operated by an individual or a group of individuals (with or without employees) with unlimited liability. Essentially, they constitute the informal sector and have limited capacity for finance and, hence, constrained in size, staffing, customer base and revenue potential.

Taxation

Tax is a statutory exaction on the incomes of persons, businesses, and properties to financially support the government. According to the Federal Inland Revenue Service [FIRS] (2012), what differentiates tax from other government exactions (i.e., fees, penalties and fines) is the absence of a specific contract or benefits in return. Hence, tax is a compulsory contribution imposed on individuals by the state to meet the expenses incurred for common use (Mungaya et al., 2012). On the other hand, taxation is the act or instituted system of imposing a tax. According to Mulooki and Mugisha (2012, as cited in Sebikari, 2014), it is a crucial system by which the government redistribute income to regulate and enhance the economy for a desired performance. To achieve this objective, Smith (1776) recommended that taxation should be based on the principles of equity (payee's ability), certainty (transparency), convenience (ease of payment), and economy (reasonable administration cost).

Small-scale enterprises are conventionally taxed using the best of judgement (BOJ) technique known as presumptive taxation. According to Rajaraman (1995), as a variant of direct taxation, presumptive taxation is solely dependent on signalling. In other words, as a first-point sales tax, its implementation hinges on explicit indicators using standard assessment, estimated assessment, net wealth assessment, visible signs of assets and minimum tax thresholds. Hence, its appropriateness because small-scale enterprises are commonly sole proprietorship ventures whose owners are inseparable from their enterprise (Borrington&Stimpson, 1999). That is, the owner and the enterprise survive on the same financial purse, thus creating bookkeeping challenges and a lack of accurate tax assessment modalities (see KW-IRS, 2016).

In Nigeria, the guidelines for the implementation of presumptive tax are provided by the Presumptive Tax Regulations, 2015, subject to the provisions of the Personal Income Tax (Amendment) Act, 2011. Thus, tax authorities engage respective taxpayers to obtain relevant information on the nature and level of business carried out. Then, put them in tax bands based on their level of activities and respective categories of trade and profession. Subsequently, it is the prerogative of the taxpayer to file returns on or before 90 days from the commencement of every year following the respective tax authorities' (i.e., KW-IRS) prescribed banding, mode and

procedures. Where taxpayers feel that they have been banded or taxed unfairly they are entitled to file an objection (i.e., within 15 days in KwaraState) of such assessment or voluntarily opt-out for an alternative method of assessment under the Personal Income Tax Act (Federal Ministry of Finance, 2015; KW-IRS, 2016).

As further noted by Rajaraman (1995), presumptive tax offers immense possibilities in simplifying assessment, preventing tax evasion and, consequently, reducing harassment by tax agents. In addition, according to Thuronyi (1996), its advantages include simplification for enhanced compliance, fairness and ease of administration. However, presumptive taxes are based on approximations that may not reflect the accurate picture of business turnover. Consequently, enterprises may be charged higher than what they would probably pay if books of accounts were maintained correctly (Mungaya et al. 2012). Also, it creates room for arbitrary tax billing by tax agents and illegal negotiations between enterprise owners/managers and tax agents to either write off their tax bill or reduce it to a ridiculous minimum (Thuronyi, 1996).

Presumptive or otherwise, Mungaya et al. (2012) noted that a poorly designed tax regime can lead to unfair cash outflows and a reduction of the purchasing power of any enterprise. Similarly, Tee et al. (2016) stressed that taxes generally affect the taxed enterprises and the households who patronise them through tax-induced price changes. Within Nigeria, empirical shreds of evidence from studies such as Ojeka (2011), Inim et al. (2020), and Usmana (2017) attest to this fact. As a result, tax-related issues remain a significant threat to the survival of would-be and existing small-scale enterprises in Nigeria.

The primary objective of any enterprise of any size and age is to survive against all odds. The Oxford Online Dictionary (2019) defined survival as the state or fact of continuing to live or typically exist, despite an accident, ordeal, or challenging circumstances. According to Cefis and Marsili (2012), survival in entrepreneurial parlance refers to the ability of a firm not to close its operations temporarily or permanently, regardless of challenges. Using firm-level characteristics, the Organisation for Economic Co-operation and Development [OECD] (2004) defined the survival of an enterprise as its continuous existence, from a previous year to a subsequent year in view, by being active in terms of turnover and/or employment, with or without a takeover. Similarly, to SMEDAN-NBS (2013), an enterprise can consistently sustain its operation longer than the first five years.

Following a time dimension definition similar to Gort and Klepper (1982), Churchill and Lewis (1983) enunciated five stages in the life cycle of a small-scale enterprise. The stages are existence, survival, success (comprising disengagement and growth sub-stages), take-off, and full maturity. Notably, the survival stage is the second and most vital, where the enterprise must demonstrate that it can sufficiently satisfy and retain its customers. As such, survival is a crucial post-entry phase where: first, positive net profit is vital; second, its importance precedes and supersedes the growth stage; and third, it is characterised by efforts to consistently sustain operation and finance future growth but with survival as the central goal (Churchill & Lewis, 1983).

Review of theories

Based on Walras' (1874) "*Elements of Pure Economics*" the traditional theory of the firm described an enterprise's survival as a short-run objective which is, first, a function of its ability to attain breakeven (normal profit) by fulfilling its first order condition for profitability. The breakeven or first-order condition requires the equality of incremental cost and revenue, at a point beyond which the former builds up faster than the later. Followed and crucial for growth, is the second order condition which requires the covering of average variable costs (Jehle&Reny, 2011, pp. 125-126; Jhingan, 2003, p. 370).

Penrose (1979), following Gilbrat's (1931) law of proportionate increase, initiated the law of proportional growth in her "*The Theory of the Growth of the Firm*". According to the law the competitive advantage, profit, survival and growth objectives of an enterprise are a function of its tangible (physical/material) resources, distinguishable intangible (i.e., human) resources, and the availability of interstices created by bigger enterprises' failure to exhaust business opportunities accompanying their every innovation. Therefore, the first-order condition for survival is the ownership of resources (inherited or acquired) while the second-order, and crucial condition for small-scale entrepreneurs' survival, is the willingness, competence/innovativeness and ability to identify product opportunities (interstices) and act upon them appropriately. According to Penrose (1979), size and age do not matter since firms survive and grow in proportion to their resources only.

Furtherance to Penrose's (1979) law of proportional growth, Jovanovich (1982) propounded the theory of noisy selection which is also known as "the passive learning model". According to Jovanovich (1982), the survival objective of an enterprise is a function of its cost function (particularly its stochastic cost component), age, and the efficiency capability of its owner/manager through experience in the same trade. The operational efficiency capability is the ability to adaptively minimise stochastic cost components over time. Hence, the longer a firm remains in the market, the more it learns about its actual cost dynamics and relative efficiency. By implication, the lower its stochastic cost components (hence expected loss) the higher will be its degree of efficiency and probability of survival. This feature distinguishes the efficient and surviving firms from others (the noisy selection).

In retrospect, the traditional theory of the firm emphasises a firm's survival as its ability to attain breakeven and beyond (Jehle&Reny, 2011, pp. 125-126; Jhingan, 2003, p. 370), the law of proportional growth identified the roles of tangible (physical/material) resources, distinguishable intangible (i.e., human) resources, and the availability of interstices within the market (Penrose, 1979), while the theory of noisy selection emphasises cost minimisation (particularly, firms' stochastic cost component), age and efficiency capability of owner/manager through experience (Jovanovich, 1982).

The theories are not without limitations. Particularly, Penrose (1979), although, considering the role of managerial intuition and imagination to utilise physical resources, ignored the importance of incomplete information and long-term experience gained from output decisions towards risk minimisation. She also underrated the possibility of a firm's exit due to inefficiency. Further, Jovanovich (1982), emphasised the importance of efficiency through experience gained from previous output decisions yet disregarded technological change, a product of experience and innovation. Besides, he assumed that the opportunity cost of the efficiency level of an entrepreneur is zero. Arguably, the managerial experience gained from operating in a particular industry is most likely beneficial and transferable to another industry or sector.

Empirical review

Early empirical inquiries into the survival of small-scale enterprises mainly concentrated on firm and industry-specific factors (see Gort &Klepper, 1982; Jovanovich, 1982; Pakes & Ericson, 1998). Subsequent studies then spurred a mix of firm and industry-specific factors as well as country-specific and institutional-based factors (see Aga & Francis, 2015; Byrne et al., 2015; McKenzie & Paffhausen, 2017). In line with the broad objective of this study, taxation factors (institutional-based factors) and other economic factors (firm-specific factors) are reviewed as follows.

Empirical studies on the impact of taxation on firm survival

Ojeka (2011) using a correlation and descriptive analysis approach discovered that SMEs' tax payments are mildly harmful to their running costs and, by extension the ability to self-sustain in Zaria, Nigeria. Adebisi and Gbegi (2013) using descriptive and ANOVA methods found a significant harmful effect of multiple taxes on the sustenance of the West African Ceramics Limited, Ajaokuta. Some other identified vulnerable factors were lack of consideration for size, business volume, survival challenges and previous compliance records by the tax authority. Ocheni and Gemade (2015) surveying seventy-four small- and medium-scale enterprises discovered through a descriptive approach that taxation issues, vis-à-vis multiple taxes and enormous tax burdens, are among the critical factors responsible for the untimely extinction of small-scale enterprises in Benue State, Nigeria. Tee et al. (2016) explored the effect of taxation on the profitability of small- and medium enterprises (SMEs) using a survey of 102 managers of SMEs in the Ga West Municipality, Accra, Ghana. The study revealed that the firms' survival, growth capacity and competitiveness were severely constrained by taxation. Ameyaw et al. (2016) surveyed 200 small- and medium-scale enterprises (SMEs) operating between 2002 and 2015. Taxation was discovered to have adverse effects on the growth of the surveyed SMEs across four markets within the Accra Metropolitan Assembly.

Further, Agu et al. (2019) analysed data from randomly selected 162 employees and owners of 40 SMEs using T-test and regression analysis techniques. The overarching finding was that increased firms' performance, hence survival, is a function of favourable taxation vis-à-vis tax assessment, collection and utilisation in Aba, Abia State. Inim et al. (2020) with secondary data (2007 to 2019) employed co-integration and error correction models in their approach. Mainly, the study revealed significant negative impacts of taxation vis-à-vis company income and value income taxes on SMEs productivity and growth capabilities in Nigeria. Usmana (2017) examined 320 small-scale enterprises in Maiduguri Metropolis by applying descriptive and multiple linear regression analytical methods. The study found hostile effects of multiple taxes on the enterprises through operating capital, profitability, sales, and growth potentials.

Empirical studies on the impact of other economic factors on firm survival

Among earlier studies, Buddelmeyer et al. (2006) experimented with an unbalanced panel of over 290,000 Australian firms to estimate a piecewise constant exponential hazard rate model. Their findings showed that investment in innovation (also known as perfect innovation) is inversely related to firm survival, while innovation capital (defined as the existing stock of a firm's past innovations per time) is positively related to its survival. Additionally, after controlling for the positive effect of firm efficiency and the adverse effects of industry competitiveness, interest rates, financial constraints, industry risk, and variable cost on firm survival, the impact of age was largely insignificant. Notably, their conclusion was contrary to the findings of studies such as Aga and Francis (2015) and Audretsch et al. (2000).

Further, Aga and Francis (2015) conducted a probit regression analysis using the World Bank's Enterprise Survey data. They found that a firm's age, size, labour productivity, bank financing, ownership structure and legal structure are significantly and positively related to its survival across 47 economies. They also discovered that service and manufacturing sector firms have higher survival chances than retail firms. Notably, the age and size results are consistent with that of Audretsch et al. (2000) on 2,017 Netherlands manufacturing industry firms. However, their studies differ through the latter's focus on the Netherlands' sub-economies and application of logit regression covering 1978 to 1992. Dunne and Masenyetse (2015) applied the non-parametric Kaplan-Meier product limit method and Cox proportional hazard model on panel data spanning between 2000 and 2010. The study found that bigger size, high profitability, high leverage, and domestic origin significantly increase a firm's survival likelihood in South Africa. However,

contrary to popular opinion, age negated the survival probabilities of the firms. Byrne et al. (2015) conducted a Cox proportional hazard model analysis using a ten-year (2000 to 2009) unbalanced panel data of 9,457 United Kingdom firms. The outcome was a significant positive relationship between size, age and profitability but negative with indebtedness. The baseline discovery was the higher significance of the effects after controlling for uncertainty during financial crises as opposed to tranquil periods.

Some underlying empirical gaps are paramount from the foregoing. First, empirical studies on taxation and small-scale enterprise relationships in Nigeria have mainly focused on performance and growth with less attention to small-scale enterprises' survival (see for example Agu et al., 2019; Inim et al., 2020; Ojeka, 2011). More so, there is a dearth of empirical studies on small-scale enterprise survival in Kwara State. Hence, this study concentrates on the survival of small-scale enterprises in Ilorin South. Second, small-scale enterprises, by nature, are known for their informal or lack of record-keeping practices, and inability to distinguish business capital from personal money (see Agwu&Emeti, 2014; Bozdoğanoğlu, 2016; Cafferky& Wentworth, 2014), and non-predictive and wide geographic spread (see Muritala et al., 2012; Oluwaremi et al., 2016). The implication of this is the dearth of a longitudinal data bank for research, particularly in Kwara State. This forms a research limitation because research on enterprise survival is conventionally a time-to-event analysis which requires the availability of a longitudinal data bank or sufficient censoring period (see for example Byrne et al., 2015; Cefis&Marsili, 2012; Dunne &Masenyetse, 2015). Therefore, this study addresses these limitations, hence research gaps, through a survey research approach.

Methodology

The identified research gaps hint at the absence of a specific contextual and empirical guide to the subject matter. To address such a challenge, Armstrong (1974) and Carmines and Zeller (1979) recommended using an eclectic research methodology. According to Carmines and Zeller (1979), eclectic research is the combination of theoretical frameworks surrounding key concepts and empirical evidence (see also Armstrong, 1974). Therefore, this study's eclectic research approach combines the concept of enterprise's survival as enunciated by Churchill and Lewis (1983), the maxims of taxation following Smith (1776), the traditional theory of the firm following Walras' (1874) "*Elements of Pure Economics*", the law of proportional growth as propounded by Penrose (1979) and the methodologies of Agu et al. (2019), Ameyaw et al. (2016), Ocheni and Gemade (2015), Ojeka (2011), and Buddelmeyer et al. (2006).

Also, the identified data limitation and choice of survey approach imply the use of scaled latent variables due to the identified common characteristics of the test subjects. However, the lack of an exact measure of the distance between consecutive scale points is a measurement challenge and a violation of the classical least square assumption of normal distribution. According to Winship and Mare (1984, as cited in Long &Freese, 2014), the implications are unrealistic outcomes and incorrect conclusions. Therefore, StataCorp (2021), Long and Freese (2014), and Jackman (2000) recommend the use of the ordered probit regression for estimating ordinal relationships. Given these facts this study's research methodology employs the ordered probit regression technique.

Model specification

This study utilised an ordered probit model to examine the impact of taxation on the survival of SSEs. An ordered probit model estimates an underlying score (dependent variable) as a linear function of independent variables (ordered or continuous) plus a random error using the cumulative density function of the normal probability distribution function. Hence, the probability of observing outcome i corresponds with the probability that the estimated linear function, plus random error, is within the range of the cutpoints estimated for the outcome (StataCorp, 2021;

Stock & Watson, 2015, pp.391-395). According to Asteriou and Hall (2021), this econometric model type is suitable for the analyses of polychotomous variables with natural ordering as obtained in this study (see also Stock & Watson, 2015, p.423).

The impact of taxation through the extent of tax compliance, the convenience of tax payment channels and deadline, the ease of covering the running costs of factors (e.g., IBEDC bills, shop rents) and the enterprise's age on the breakeven threshold of small-scale enterprises in Ilorin South as a proxy to the probability of their survival is empirically expressed thus:

$$\Pr(SSE_{Surv} = i) = \Pr(\kappa_{i-(i-1)} < \beta_0 + \beta_1 TCOMP + \beta_2 TPCh + \beta_3 TPDl + \beta_4 RCst + \beta_5 E\_Age + \varepsilon \leq \kappa_i) \tag{1}$$

Where ε is normally distributed error term, κ_i is an estimated cutpoint, the number of which is determined by the adopted Likert scale points i for the dependent variable SSE_{Surv}, β_0 is the estimated constant intercept, and $\beta_1, \beta_2, \beta_3, \beta_4$ and β_5 are the estimated parameters measuring the impact of changes in the independent variables on the probability of each ordinal outcome κ_i of the target population's survival (dependent variable) (see Jackman, 2000; StataCorp, 2021).

Dependent variable

Small-scale enterprise's survival (SSE_{Surv}): test subjects' psychometric measure of their breakeven threshold attainment frequency across estimated 5-Likert scale cutpoints.

Independent Variables

   i. Tax Compliance by Respondents ($TComp$): test subjects' psychometric measure of their tax compliance frequency across 5-Likert scale points.
  ii. Tax Payment Channels ($TPCh$): test subjects' psychometric measure of the convenience experienced using the available KW-IRS tax payment channels across 5-Likert scale points.
 iii. Tax Payment Deadline ($TPDl$): test subjects' psychometric measure of the associated convenience with the KW-IRS annual tax payment deadline across 5-Likert scale points.
 iv. Running Costs ($RCst$): test subjects' psychometric measure of the ease of covering their running costs of factors (i.e., IBEDC bills, shop rents etc.) across 5-Likert scale points.
  v. Enterprises' Age (E_Age): Age group of respondent's enterprises across 3-Likert scale points.

Techniques of analysis

This research work is a survey-based work due to the identified data limitations which precipitated the use of scaled latent variables. Hence, descriptive statistics and probability regression are the two analyses techniques. First, the descriptive analysis provides underlying empirical characteristics of the test subjects through simple and relative frequency distributions. Second, the probability regression will give estimates on the relationships through the adopted ordered probit model. However, ordered probit regression only produces maximum likelihood estimators. By implication, the magnitudes of estimated parameters are not statistically interpretable and can only be translated in principle (Katchova, 2020; Kilishi, 2013). Therefore, the model's goodness of fit will be assessed using the likelihood ratio chi-square. At the same time, the statistical significance of causal relationships will be interpreted using the results of the marginal effects after ordered probit regression.

Decision rules

   i. The likelihood ratio chi-square measures the deviation of a specified ordered probit model (the maximum likelihood) from its alternative with no predictors (the minimum likelihood).

Therefore, the decision rule is to accept the alternative hypothesis that at least one of the predictors is not equal to zero if the chi-square is statistically significant at a 5 per cent significance level given its p-value.

ii. The marginal effect measures discrete changes in the ordered and categorical dependent variable for discrete changes in its ordered and categorical predictors from the base levels of 1, respectively. Therefore, the decision rule is to accept the alternative hypothesis that a respective predictor parameter is statistically different from zero if it is statistically significant at a 5 per cent significance level given its p-value.

Measurement and source of data

The ordered latent variables (dependent and independent), besides enterprise age, of this study will be obtained through respondents' psychometric measure of scale points. Hence, a one-off survey was adopted using a structured questionnaire to obtain psychometric measures of variables as appropriate. The research instruments were administered to owners/managers of small-scale enterprises in Ilorin South based on a predetermined sample size within designated clusters. This methodology follows studies such as Aga and Francis (2015), and Ocheni and Gemade (2015).

Determination of sample size

Miaoulis and Michener (1976) recommend three criteria for determining an adequate survey sample size. They are the level of precision, confidence or risk, and the degree of variability in the measured attributes. Further, according to Adam (2020) and Bartlett et al. (2001), the Cochran (1977) sample size formula is best suited for discreet variable-based survey research under circumstances of unknown population size and degree of sample variability, as applicable to this study. Consequently, the Cochran (1977) sample size formula is adopted to fulfil the Miaoulis and Michener (1976) criteria using a 95 per cent level of confidence, ±5 per cent acceptable degree of sampling error, with 85 per cent degree of sample variability. Mainly, the 85 per cent level of variability accounts for the highly heterogeneous nature of small-scale enterprises. The anticipated heterogeneity factors are their business acumen, financial strength, category of trade, vocation and speciality (see Agu et al., 2019; Ojeka, 2011; Tee et al., 2016). Particularly, they are widely dispersed and complex to wholly and precisely censure within a reasonable period.

As established by Cochran (1977, p.75), the sample size approximation formula is:

$$n = \frac{Z^2 p(1-p)}{\xi^2} \tag{2}$$

Where: n is the target sample size, Z (z-score value) indicates the number of standard deviations of the calculated sample means from the population mean at a stipulated confidence level, p is the maximum acceptable variability in samples, and ξ is the acceptable degree of sampling error. Based on a 95 per cent confidence level, 5 per cent degree of sampling error, with 85 per cent degree of variability the sample size is:

$$195.92 = \frac{1.96^2 0.85(1-0.85)}{0.05^2} \tag{3}$$

Sampling method

Small-scale enterprises are known for their non-predictive and wide geographic spread. Such features, although identified by Oluwaremi et al. (2016) and Muritala et al. (2012)as economic advantages, portend sampling challenges. By implication, difficulties with ease of accessibility to and willingness of participants were unavoidable in the sampling process. Hence, a multi-stage sampling method using cluster and random sampling techniques was adopted. Giving the

calculated sample size of 196, Ilorin South was divided into 4 clusters and the test subjects (49 each) were then selected within each cluster using a simple random sampling technique (see Etikan et al., 2016). It was expected that randomly taking an equal number of test subjects from 4 clusters within busy commercial hubs of Ilorin South would significantly reduce sampling bias.

Research instrument

Obtaining quantitative data from small-scale enterprises is difficult due to their lack of record-keeping practices/inability to distinguish business capital from personal money (see Agwu&Emeti, 2014; Bozdoğanoğlu, 2016; Cafferky& Wentworth, 2014). This is in addition to the dearth of a longitudinal data bank for SMEs in Ilorin South, besides the financial and time constraints that are associated with a time-to-event survey. Therefore, a questionnaire was designed and administered through a one-off survey to solicit the required data. The questions were constructed in line with the perspective of Cafferky and Wentworth (2014) on enterprise surveys. Particularly, Cafferky and Wentworth (2014) recommended using mental comparison by the enterprise owner/manager when it is difficult to obtain quantitative operational data on their enterprise. Hence, the variables are based on psychometric Likert scale measures to proxy the unobservable concepts. The Likert scale facilitates simplicity and a higher likelihood of enhancing collected data's scientific validity and reliability (see Taherdoost, 2016a, 2019).

Validity and reliability of research instrument

This study's target population involves test subjects that are difficult to predict or control with precision. An inevitable implication is the collection of non-experiential data which are subject to a substantial amount of measurement error, hence validity and reliability issues (Armstrong, 1974; Carmines & Zeller, 1979). Consequently, this study's research instrument was subjected to content validity assessment by research professionals, a pilot survey of five respondents each from four clusters in Ilorin South and the following scientific measures.

Validity of research instrument

According to Carmines and Zeller (1979), the validity (sufficiency) of adopted proxies, and by extension, the questionnaire, is the first prerequisite toward the scientific acceptance of any questionnaire (see also Taherdoost, 2016b; & Bolarinwa, 2021). As argued by Bolarinwa (2021), the questionnaire and adopted proxies must be interesting and succinct yet comprehensively align with the study's analytical framework. Also, Carmines and Zeller (1979, p.26) specified that a research instrument is constructively valid whenever a convergence of findings by different empirical studies using different theoretical methodologies can be established. Hence, this study's research instrument is constructively valid, given that concepts and consistent patterns in the reviewed theoretical and empirical works guided the choice of proxies. In addition, the content validity of the research instrument was further established by computing its response and completion rates. Mainly, the response rate is an indicator of the instrument's engagement strength and the non-response bias in the final sample size relative to the calculated, while the completion rate establishes the scientific depth of the instrument's clarity and relevance (see Bolarinwa, 2021; Carmines & Zeller, 1979; Liu &Wronski, 2018; Taherdoost, 2016c). The formulae are:

$$Response\ Rate = \frac{Total\ Retrieved\ Questionnaire}{Total\ Administrered\ Questionnaire}\ x\ 100 \qquad (4)$$

$$Completion\ Rate = \frac{\%\ Completed\ of\ Total\ Questionnaire}{Response\ Rate} \qquad (5)$$

Reliability of research instrument

According to Carmines and Zeller (1979), the second prerequisite for the scientific acceptance of a questionnaire is its reliability (unbiasedness and consistency) (see also Bolarinwa, 2021; Cronbach, 1951; Taherdoost, 2016a). According to Cronbach (1951) and Carmines and Zeller (1979), Cronbach's alpha coefficient is the most reliable and widely applied in research involving Likert scales. Its major advantage is the yielding of uniquely reliable estimates. Therefore, the Cronbach (1951) alpha internal consistency test for reliability is adopted to ascertain the degree of reliability of the psychometric measure of SSEs' survival (breakeven threshold attainment) in the research instrument. The procedure was carried out using Stata Corp (2021) statistical package. Where α is the coefficient of reliability, $\bar{\rho}$ is the mean interitem correlation, and N is the number of questions specified in alternative forms to test the reliability of a psychometric proxy; Cronbach's (1951) alpha is:

$$\alpha = N\bar{\rho}/[1 + \bar{\rho}(N - 1)] \tag{6}$$

As a rule, Carmines and Zeller (1979) recommend that reliabilities should be at least 0.8 for widely used scales. However, they opined that the reliability adequacy should be subject to a respective researcher's judgement based on the particular purpose. Nonetheless, the most important thing is that the researcher must report the alpha and its calculation procedure.

Data Analysis and Results

This section presents the descriptive and inferential analyses and the discussion of findings. It delivers these through four sub-sections: descriptive analysis, inferential analysis, hypotheses tests, and discussion of findings.

Descriptive analysis of survey data

This sub-section provides the presentation and interpretation of the descriptive attributes of the collected data. The essence is to demonstrate salient patterns of the collected data to aid the attainment of the research's overall objective. The descriptive attributes of the research instrument, the collected data and their interpretation are presented as follows:

Table 1: The Cronbach's Reliability Alpha of the Dependent Variable

Number of Items in the Scale	Average Interitem Correlation	Scale Reliability Coefficient
2	0.6214	0.7665

Source: Author's Computation, 2022

The reliability (unbiasedness and consistency) of the respondent's assessment of the dependent variable was tested using questions 11 and 12 of the questionnaire (see Appendices). Based on the scale reliability coefficient of approximately 0.8 (see Table 1), the research instrument provided a reliable measure of the breakeven threshold for the research analysis.

Table 2: Survey Response and Completion Rates

Cluster	Administered Questionnaire	Frequency of Response	Relative Frequency (%)	Completed Questionnaire	Response Rate (%)	Completion Rate (%)
A	B	C	D	E		
Fate-Basin axis	49	43	24.02	33	87.75	76.74
GaaAkanbi axis	49	49	27.37	24	100	48.98
Offa Garage axis	49	47	26.26	41	98.92	87.23
Tanke axis	49	40	22.35	39	81.63	97.5
Total	196	179	100	137	91.33	76.54

Source: Author's Computation, 2022

As shown in Table 2, the distribution of respondents by clusters delivered a strong survey response rate of 91.33 per cent as 179 of the administered 196 questionnaires were recovered. Also, 137 (76.54%) of the recovered 179 questionnaires were completed. Hence, the overall survey completion rate was 76.54 per cent. However, the completion rate for the questions that are crucial to the inferential analysis was 100 per cent. Hence, the collected data is valid for the proposed objective (see Liu &Wronski, 2018)

Table 3: Distribution of Respondents by Enterprises' Age Group

Age Group of Enterprise	Frequency	Relative Frequency (%)	Cumulative Frequency (%)
Greater than 5 years	95	53.07	53.07
Between 3 to 5 years	46	25.70	78.77
Less than 3 years	38	21.23	100.00
Total	179	100.00	

Source: Author's Computation, 2022

According to Table 3a, the majority of 53.07 per cent (95 respondents) of the respondents' respective enterprises are older than five years. Also, 25.7 per cent (46 respondents) and 21.23 per cent (35 respondents) fall within the 3 to 5 years and less than three years age brackets, respectively. By implication, there is a high survey representation of enterprises aged at least three years and above (145 of the sampled 179 respondents), given the cumulative relative frequency of 78.77 per cent for enterprises in this age category.

Table 4:Distribution of Respondents by Sectors

S/N	GDP Activity Sector/Sub-Sector	Enterprise Category	Frequency	Relative Frequency (%)
A.	Agriculture			
1	Livestock	Agriculture (Poultry Farming)	1	0.56
B.	Industry			
1	Other Manufacturing	Craftmanship	3	1.68
C.	Services			
1	Accommodation & Food Services	Restaurant/ Catering	9	5.03
		Entertainment	7	3.91
2	Arts, Entertainment & Recreation	Graphics Design/Signage	1	0.56
		Photography	1	0.56

S/N	GDP Activity Sector/Sub-Sector	Enterprise Category	Frequency	Relative Frequency (%)
3	Education	Crèche	1	0.56
4	Other Services	Business Centre	1	0.56
5	Professional Scientific & Technical Services	Artisan	39	21.79
		Barbershop/ Beauty Salon	12	6.70
		Fashion Designer	31	17.32
		Laundry	3	1.68
6	Real Estate	Agency	5	2.79
7	Trade	Merchandise	65	36.31
	Total		179	100.00

Source: Author's Computation, 2022

Table 4 categorises the enterprises following the CBN (2021) Statistical Bulletin real sector activities. The distribution shows that a greater percentage of the firms fall within the services activity sector. Table 4 also shows that the highest number of respondents, 36.31 per cent, belong to the trade (merchandise) category, followed by the artisans (21.79 %) and fashion designers (17.32%). Also in the lead are the enterprises operating barbershops/beauty salons (6.7%) and restaurant/catering (5.03%) categories. The distribution of respondents by enterprise category demonstrated variety among the surveyed small-scale enterprises.

Table 5: Distribution of Respondents by CAC Registration Status

CAC Registration Status	Frequency	Relative Frequency (%)	Cumulative Frequency (%)
Registered with CAC	92	51.40	51.40
Not registered with CAC	61	34.08	85.47
Registration with CAC that is in progress	26	14.53	100.00
Total	179	100.00	

Source: Author's Computation, 2022

Table 6: Distribution of Respondents by Record-Keeping Practice

Description	Frequency	Sub-Relative Frequency (%)	Relative Frequency (% of Grand Total)
Keeps Record of Transactions			
Record of transactions up-to-date:	107	84.25	59.78
Non-standard accounting method compliant	41	38.32	22.91
Standard accounting method compliant	66	61.68	36.87
Record of transactions not up-to-date:	20	15.75	11.17
Sub-total	127	100	70.95
Total	127		70.95
Does not Keep Record of Transactions:	50		27.93
No Response	2		1.12
Grand Total	179		100

Source: Author's Computation, 2022

Questions were asked on respondents' Corporate Affairs Commission (CAC) registration status and record-keeping practice to ascertain their formality. As presented in Table 5, the distribution of respondents showed that a more significant percentage of 51.5 (92 respondents out of 179) were formally registered, 34.08 per cent (61 respondents) were not, while 14.53 per cent (26 respondents) claimed that their registration was in progress. A further assessment of their formality extent revealed that 70.95 per cent of the respondents keep transaction records, with a meagre 36.87 per cent of total respondents keeping up-to-date records based on standard accounting practice (see Table 6).

Table 7: Distribution of Respondents by Most Pressing Financial Challenge

Most Pressing Financial Challenge	Frequency	Relative Frequency (%)	Cumulative Frequency (%)
Insufficient cash flow	67	37.43	37.43
Payment of tax	38	21.23	58.66
Making profit	29	16.20	74.86
Payment of government levies	23	12.85	87.71
Obtaining loan	19	10.61	98.32
Other specified challenges	0	0	98.32
No response	3	1.68	100
Total	179	100.00	

Source: Author's Computation, 2022

Concerning the most pressing financial challenge, Table 7 shows that most of the surveyed small-scale enterprises (37.43% of respondents) selected insufficient cash flow. The second most pressing financial challenge, as indicated by 21.23 per cent of the respondents, was tax payment. Also, making a profit was their third most pressing financial challenge, as indicated by 16.2 per cent of the respondents, followed by payment of government levies (12.85% of respondents). Consequently, insufficient cash flow, tax payments, making profit and payment of government levies are the most pressing financial challenges for small-scale enterprises in Ilorin South. Overall, only three respondents skipped this respective question, thus resulting in a completion rate of 98.32 per cent.

Table 8:Distribution of Respondents by Tax Payment Channels

Payment Channels	Frequency	Relative Frequency (%)	Cumulative Frequency (%)
Cash payment to tax officers	73	40.78	40.78
Cash payment at the tax office	62	34.64	75.44
Commercial bank	24	13.41	88.85
KW-IRS POS Terminals	19	10.61	99.46
No response	1	0.56	100.00
Total	179	100.00	

Source: Author's Computation, 2022

Table 8 indicates that a significant 40.79 per cent of respondents pay their taxes by cash to field tax agents, while 34.64 per cent pay directly at tax offices. Also, 13.41 per cent pay through commercial banks, while 10.61 per cent of total respondents pay through KW-IRS POS terminals. Overall, only one respondent skipped the respective question to result ina completion rate of 99.46 per cent.

Table 9:Frequency of Responses to Key Research Questions

TPCh Scale Points	Frequency	Relative Frequency	*TPDl* Scale Points	Frequency	Relative Frequency
Very inconvenient	10	5.59	Very unfavourable	11	6.15
Inconvenient	39	21.79	Unfavourable	40	22.35
Indifferent	36	20.11	Indifferent	38	21.23
Subtotal	85	47.5%	Subtotal	89	49.7%
Convenient	57	31.84	Favourable	67	37.43
Very convenient	37	20.67	Very favourable	23	12.85
Subtotal	94	52.5%	Subtotal	90	50.3%
Total	179	100%	Total	179	100
TComp Scale Points	Frequency	Relative Frequency	*RCst* Scale Points	Frequency	Relative Frequency
Never	2	1.12	Very unfavourable	16	8.94
Rarely	25	13.97	Unfavourable	61	34.08
Sometimes	39	21.79	Indifferent	19	10.61
Subtotal	66	36.9%	Subtotal	96	53.6%
Frequently	46	25.7	Favourable	53	29.61
Always	67	37.43	Very favourable	30	16.76
Subtotal	113	63.1%	Subtotal	83	46.4%
Total	179	100	Total	179	100

Source: Author's Computation
*Note: **TPCh** represents responses to the question on the degree of convenience of tax payment channels; **TComp** represents responses to the question on tax payment compliance; **TPDl** represents responses to the question on the convenience of tax payment deadline; **RCst** represents responses to the question on the ease of covering the running cost of factors (see questions 16, 19, 20 & 22, respectively, in the Appendices).*

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As shown in Table 9, a greater percentage of respondents (52.5%) indicated that their choice of tax payment channel (**TPCh**) has been either convenient or very convenient while others (47.5%) indicated between the indifferent and very inconvenient range. Also, a greater percentage (63.1%) of the respondents indicated that they are tax compliant (**TComp**) always or frequently, while 50.3 per cent psychometrically indicated either favourable or very favourable experience to KW-IRS tax payment deadlines (**TPDl**). Finally, 43 per cent of the respondents indicated that their respective running costs (**RCst**) of factors fall within the unfavourable range, 10.61 per cent where indifferent, while 46.4 per cent of the respondents fall within the favourable range.

Results of Estimated Models

The collected data was inferentially analysed using the earlier specified ordered probit model. Most importantly, marginal effects were computed after the model estimation to address the model's known deficiency of producing only maximum likelihood estimators that are only interpretable in terms of sign and significance. In addition, the model's overall goodness of fit was gauged using its likelihood ratio chi-square value. The estimates are presented in Tables 10 and 11.

Table 10: Result of Ordered Probit Regression Model

	Coefficient	Std. error	Z	P-value		
	0.178048	0.077314	2.3	0.021	LR (5)	Prob> chi2
	0.263956	0.082126	3.21	0.001	53.64	0.000
	0.002343	0.100078	0.02	0.981		
	0.2986	0.084612	3.53	0.000		
	0.153325	0.107094	1.43	0.152		
/cut1	0.364711	0.497024				
/cut2	1.365011	0.4648				
/cut3	2.868569	0.491346				
/cut4	4.033091	0.518933				

Source: Author's Computation, 2022
Note: SSEsurv represent respondents' psychometric measure of their respective breakeven threshold attainment along a 5-point Likert scale; TComp represent respondents' psychometric measure of tax compliance along a 5-point Likert scale; TPCh represent respondents' psychometric measure of ease of tax payment channels along a 5-point Likert scale; TPDl represent respondents' psychometric measure of the convenience of tax payment deadline along a 5-point Likert scale; RCst represent respondents' psychometric measure of the favourability of their running costs along a 5-point Likert scale; &E_Age is the age group of enterprise along a 3-point Likert scale.

Given the model's likelihood ratio chi-square value of 53.64 with a p-value of 0.000, the model passed the goodness of fit test at a 5 per cent significance level. Hence, all the model's predictors are relevant, and the alternative hypothesis that at least one of the predictors is not equal to zero is accepted.

Table 11: Results of Marginal Effects after Ordered Probit Regression

Variable	Outcomes				
Scale	1	2	3	4	5
dy/dx	(Never) Pr(SSEsurv) = .00603648	(Rarely) Pr(SSEsurv) = .05952294	(Sometimes) Pr(SSEsurv) = .43198838	(Frequently) Pr(SSEsurv) = .37909665	(Always) Pr(SSEsurv) = .12335556
1.0	-.0030436 (0.00226) *p-value = 0.178*	-0.01968 (0.0095) *p-value = 0.038**	-0.0483 (0.02194) *p-value = 0.028**	0.034716 (0.01628) *p-value= 0.033**	0.036314 (0.01623) *p-value = 0.025**
2.0	-0.00451 (0.0031) *p-value = 0.146*	-0.02918 (0.01085) *p-value = 0.007**	-0.07161 (0.02428) *p-value = 0.003**	0.051466 (0.0185) *p-value = 0.005**	0.053835 (0.0176) *p-value = 0.002**
3.0	-0.00004 (0.00171) *p-value = 0.981*	-0.00026 (0.01106) *p-value = 0.981*	-0.00064 (0.02715) *p-value = 0.981*	0.000457 (0.01951) *p-value = 0.981*	0.000478 (0.02041) *p-value = 0.981*
	-0.0051 (0.00343) *p-value = 0.137*	-0.03301 (0.01134) *p-value = 0.004**	-0.08101 (0.02565) *p-value = 0.002**	0.058221 (0.01951) *p-value = 0.003**	0.060901 (0.01835) *p-value = 0.001**
	-0.00262 (0.00246) *p-value = 0.286*	-0.01695 (0.0123) *p-value = 0.168*	-0.0416 (0.02959) *p-value = 0.16*	0.029895 (0.02152) *p-value = 0.165*	0.031272 (0.02211) *p-value = 0.157*

Source: Authors' Computation, 2022

Note: dy/dx is the discrete change in SSEsurv from the base level of 1 for a corresponding discrete change in a predictor; Standard errors in parenthesis; * indicate significance at 5%; dy is the change in the regressand while dx is the change in all regressors combined; the regressandSSEsurv represents the probability of breakeven threshold attainment by small-scale enterprises in Ilorin South at each scale point as a psychometric measure of their survival prospect.

The results show that the respondents' attitudinal response towards tax compliance ($TComp$) demonstrated both negative and positive likelihood effects across the 5-Likertscale points of the breakeven threshold. The coefficients of the marginal effects are -0.0030436, -0.01968, -0.0483, 0.034716, and 0.036314. In particular, only the 2nd to 5th scale points coefficients are statistically significant at 5 per cent. Therefore, respondents are less likely to be in the never, rarely or

sometimes scale points, but more likely to be in the frequently or always scale points of breakeven threshold attainment. This result is consistent with the ordered probit regression result (see Table 10), which produced a positive tax compliance ($TComp$) coefficient at a 5 per cent level of significance.

The results revealed that the respondents' psychometric response to the convenience of tax payment channels ($TPCh$) has positive and negative marginal effects across the 5-Likert scale points of their breakeven threshold. Consecutively, the coefficients are -0.00451, -0.02918, -0.07161, 0.051466, and 0.053835. Besides the insignificant first coefficient(-0.00451) the others are statistically significant at a 5 per cent significance level. Notably, given the coefficients' signs and significance, an increase in the perceived convenience of tax payment channels causes respondents to be less likely to be on the never, rarely or sometimes scale points and more likely to be on the frequently or always scale points of breakeven threshold attainment. This outcome is consistent with the ordered probit regression result of a positive and statistically significant tax payment channels ($TPCh$) coefficient of 0.263956 (see Table 10).

The result reveals that the favourability of the tax payment deadline ($TPDl$) has both positive and negative marginal effects across the 5-Likert scale points given its consecutive coefficients of-0.00004, -0.00026, -0.00064, 0.000457, and 0.000478. Consequently, the more favourable the tax payment deadline, the less likely the test subjects' attainment of their breakeven threshold on the scale points of never, rarely or sometimes. On the other hand, a similar change results in a high likelihood of the respondents' attainment of their breakeven threshold, frequently or always. However, none of the coefficients was statistically significant at the three conventional significance levels of 1, 5 and 10 per cent. This outcome is also consistent with the ordered probit regression's result of an insignificant tax payment deadline ($TPDl$) coefficient (see Table 10).

The results show that the favourability of the respondents' running costs ($RCst$) have positive and negative marginal effects across the 5-Likert scale points. Consecutively, the marginal effects' coefficients are -0.0051, -0.03301, -0.08101, 0.058221, and 0.060901. Notably, only the first coefficient failed the statistical significance test at the conventional levels. By implication, based on the signs and significance of the coefficients the test subjects have a higher likelihood of frequently or always attaining their breakeven threshold subject to the ease of covering running costs. The outcome is consistent with the result of the ordered probit regression's statistically significant and positive running costs ($RCst$) coefficient of 0.2986 (see Table 10).

The result shows that the respondents' enterprise age (E_Age) has both positive and negative effects across the 5-Likert scale points of their breakeven threshold. Consecutively, the coefficients are -0.00262, -0.01695, -0.0416, 0.029895, and 0.031272. Based on the signs and significance of the coefficients, with a unit increase in enterprise age from the base point of one to three, respondents are less likely to never, rarely or sometimes attain their breakeven threshold but more likely to frequently or always attain the same. However, none of the scale point coefficients passed the statistical significance test at the 1, 5 and 10 per cent conventional levels. The marginal effects result is consistent with the statistically insignificant ordered probit regression's E_Age coefficient of 0.153325 (see Table 10).

Discussion of findings

The first finding is that tax compliance is less likely to threaten the probability of threshold attainment by small-scale enterprises in Ilorin South. From descriptive evidence, 63.1 per cent of the respondents have frequently or always been tax-compliant in the past three years (see Table 9). Additionally, the inferential evidence revealed, with strong statistical significance, that the higher the respondents' tax compliance attitude, the higher their probability of attaining a

favourable scale point of break-even threshold. Ultimately, a greater percentage of the respondents (63.1%) are more likely to attain their breakeven threshold despite being tax-compliant.

The second finding is that KW-IRS's tax payment channels and deadline do not threaten the probability of threshold attainment by small-scale enterprises in Ilorin South. Evidence from the descriptive statistics shows that 52.5 per cent and 50.3 per cent of the respondents positively felt that the employed tax payment channels and applicable tax clearance deadline, respectively, are either convenient or very convenient. Compared to lower 27.34 per cent and 28.5 per cent who, respectively, indicated otherwise (see Table 9). In consistency with these outcomes, inferential evidence shows that these factors have no negative marginal effects on the likelihood of the respondents' attainment of favourable breakeven thresholds.

Third, based on the established inferential evidence, the more favourable their running costs, the more likely the respondents will be at a higher favourable scale point of their breakeven threshold. The same applies to the enterprises' age although without statistical significance. Further, from descriptive evidence, a relatively low percentage (46.4%) of respondents were experiencing either favourable or very favourable running costs (see Table 9). Hence, 46.4 per cent of the test subjects have statistically significant threshold attainment likelihood subject to ease of running costs. However, the same argument could not be strongly established on the age factor considering the statistically insignificant marginal effect coefficients despite the large older population of the test subjects. About78.77 per cent of the respondents are aged three years or above (see Table 3).

Notably, the findings on taxation factors are contrary to the a priori expectations of this study and consequently at variance with the findings of studies such as Ameyaw et al. (2016), Adebisi and Gbegi (2013), Ojeka (2011), Tee et al. (2016), and Inim et al. (2020). The referenced studies established a negative relationship between taxation factors and the survival or self-sustenance of small enterprises. Also, the findings on running costs are vaguely consistent (see 46.4% frequency in Table 9) with a priori expectation and the arguments by Usmana (2017) and Ojeka (2011) on the nagging effect of running costs on small-scale enterprises.

Further, although without statistical significance, the inferential evidence shows that the enterprises have a greater probability of survival as they age. To add significance to this outcome, the descriptive evidence (see Table 4) indicated that many (53.07%) of the small-scale enterprises in Ilorin South are older than 5 years while a greater percentage (78.44%) are older than 3 years. Hence, the older the firms the higher their likelihood of survival. Debatably, this outcome is consistent with a priori expectation and the conclusions by Aga and Francis (2015), Awodun (2017), Byrne et al. (2015), Agarwal and Gort (1996), Jovanovich (1982) and Reid (1993).

Conclusion

By ensuring the stability and longevity of small-scale enterprises, their potential as catalysts of innovation and economic growth is enhanced. In due course, such effort favours the broader economy in the long run. This study investigated the impact of taxation on the survival of small-scale enterprises in Ilorin South. Scaled latent variables were gathered through a psychometric survey and analysed using descriptive metrics and an ordered probit regression model. It was hypothesised that taxation and some selected economic factors significantly hinder these enterprises' survival by limiting their ability to consistently generate the positive earnings required to break even or cover average variable costs.

Empirical evidence from the data analysis does not suggest a significant harmful effect of taxation vis-à-vis tax compliance, and KW-IRS's tax payment channels and deadlineon the survival of the examined small-scale enterprises. In addition, no harmful effects by the considered economic factors (running cost & enterprise's age) were established although descriptive evidence showed

that only 46.4 per cent of the firms enjoyed favourable running costs. Therefore, the conclusion is that taxation has no harmful impact on the survival of small-scale enterprises in Ilorin South.

However, the respondents' unsettling reaction to the mention of taxes, along with the identification of tax payments as their second most significant financial challenge, raises critical empirical concerns. This suggests the possibility of implicit adverse impacts from taxation that may not have been fully revealed. Additionally, since 78.44% of these enterprises have been operating for three years or more, the potential influence of age distribution on the overarching finding is inevitable. Reasoning from Jovanovich's (1982) theory of noisy selection, older firms often possess a competitive advantage in mitigating negative externalities, such as tax burden. This is due to their superior cost control dynamics and efficiency potential. Further evidence can be found in the empirical findings by researchers such as Aga and Francis (2015), Awodun (2017), Byrne et al. (2015), Agarwal and Gort (1996), Jovanovich (1982), and Reid (1993).

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