Survey of SME Taxpayers 2013

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Executive Summary

This Report presents the results from a survey of small and medium-sized enterprise (SME) taxpayers conducted by Revenue's Research and Analytics Branch (RAB) between November 2012 and March 2013.

A comprehensive methodological approach was undertaken to ensure representative results. Over two thousand survey forms were issued to a random sample of VAT registered customers. The overall response rate was 46%. The four broad areas covered by the survey are *Customer Service and Channels of Communication*, *Filing Annual Income Tax Return*, *Factors that Influence Compliance* and *Shadow Economy Activity*.

The SME sector makes a key contribution to economic activity and employment in the Irish economy. Revenue plays an important role in supporting SMEs by aiming to make it as easy as possible for taxpayers to be compliant. This includes simplifying procedures, providing quality customer service and reducing the costs associated with meeting tax and duty obligations.

Some of the key findings are as follows:

Satisfaction with Revenue Customer Service: Satisfaction with Revenue customer service remains high among SMEs despite the challenging economic environment - 86% reported that they were either 'satisfied' or 'very satisfied' with customer service. The proportions reporting 'dissatisfied' or 'very dissatisfied' is at its lowest since the first SME survey in 2006. Text analysis indicates that the most frequent category of comment related to the helpfulness and efficiency Revenue staff.

Administrative Burden: With respect to the time spent on Revenue related matters, 3 out of 4 SMEs spend less than two hours per week. While this represents a very marginal increase on previous years, overall we might broadly conclude that time spent on Revenue matters has not changed too much for SMEs since 2006. The results also show that SMEs in the professional and agricultural sectors spend similar time on Revenue matters (16% spend more than 2 hours for both sectors) while wholesale and retail trades spend significant time on Revenue matters (38% spend more than 2 hours). Most respondents indicated that records are maintained by either an accountant (61%) or by themselves (49%). Large SMEs tend to be more likely to have Revenue records maintained by employees while small SMEs tend to have them maintained by a spouse or partner. **We also asked respondents which aspects they find most burdensome and why. The largest proportion of responses related to the administration of VAT – particularly collecting, understanding and filing returns.**

Channels of Communication with Revenue: Just over half (55%) of respondents contacted Revenue over the past year. The *phone* remains the most used channel of communication followed by *ROS* and *the Revenue website.* However, *phone* also has the highest proportion of dissatisfaction among the channels and text analysis suggests this is due to long wait times on the automated phone system and difficulty getting the correct person to deal with a query. **With the introduction of mandatory e-filing, there has been a sharp increase in usage of *ROS* (73% in 2008 to 91% usage in 2013) and also *email* (41% to 61% usage). More traditional methods of contact such as *letters and fax* and *calling in to Revenue in person* have declined.** Satisfaction levels have decreased in some cases including of *ROS* (-7%), *phone* (-3%) and *calling in person* (-3). If we compare respondents with and without an online presence, we find that respondents who operate any online-facility are, *ceteris paribus*, much more likely to contact Revenue. Among respondents who operate a website, 2 in 3 (66%) contacted Revenue compared with less than half (49%) for those without a website. These results are supported by econometric modeling which shows that the probability of contacting Revenue is over 10.5 percentage points higher for SMEs that operate online businesses.

Factors that Influence Compliance: Overall, civic responsibility, such as the law and a sense one should do the right thing, is reported as having a greater influence on compliance than Revenue sanctions. This might suggest that the public pay taxes by consent in large part because they want to do the right thing. **Of the sanctions, a concern of having to pay interest charges is found to have the greatest degree of influence.** Given its high degree of influence, the large reported increase associated with concern of having to pay interest since 2008 is an important result. A concern of being audited has also increased significant since 2008.

Difficulties Paying Taxes: 70% of respondent indicated that they had no difficulty paying taxes. However, **economic conditions continue to be weak in the domestic economy and consequently many SMEs are experiencing financial difficulties. The results show that 1 in 5 (19%) SMEs experienced difficulty paying taxes both on time and in full, a substantial increase on 2008.** The main reported reason for difficulties was a temporary cash flow (85%). The sectors of *publishing, audiovisual and broadcasting* and *accommodation and food services activities* report high levels of difficulty in paying taxes both in full and on time while the *agriculture, forestry and fishing* sector tends to report much lower levels. A further result of note is that, compared with 2008, SMEs are now not far off being twice as likely to contact Revenue about their difficulties. Separately, econometric modeling indicates that those experiencing difficulties paying their taxes on time are 22.1 percentage points more likely to contact Revenue.

Shadow Economy Activity: In Part IV, we asked a new set of questions to obtain the views of SMEs on the shadow economy. According to the results, **1 in 6 respondents (17%) reported that they have personally seen an increase in shadow economy over the past year. Of those who observed an increase, about two-thirds (65%) felt this had an impact on their business.** Text analysis suggests that respondents felt they were impacted by shadow economy

activity in a number of ways including a loss of business and sales and being undercut on price by businesses not charging VAT. **60% of respondents indicated that they were aware that they could anonymously report an incident of shadow economy activity and 72% said they would anonymously report specific instances of activity to Revenue.** We also asked respondents who indicated they would not report activity to give reasons why they would not do so. The largest proportion of text responses indicated that it was either none of their business, it made them feel uncomfortable or it was not their job to report activity.

The sector where respondents are observing the highest degree of shadow economy activity is *construction* **and many of its associated sub-sectors such as** *joinery installation*, *plumbing, heat and air-conditioning installation* **and** *electrical installation.* *Other services* and *professional* sectors are also reported to have a high degree of risk. **Furthermore, the evidence suggests that, on average, more satisfied customers are more likely to report specific instances of shadow economy activity.** This finding, which underlines the importance of maintaining quality customer service delivery and suggests a relationship between customer service and compliance, is supported by econometric modeling.

Randomised Behavioural Experiment: In line with Revenue's objective of improving understanding of compliance behaviour, we undertook a randomised experiment to test the role of personalisation on survey responses. From our sample of approximately 2,000 business customers, 15% were randomly assigned to a treatment group while the remaining 85% were assigned to a control group. Following an approach from the research literature (Garner 2005), those in the treatment group received a personalised handwritten post-it note requesting completion with the survey while those in the control group received surveys only. **The main finding from the experiment is that response rates to survey questionnaires are significantly higher if a personalised note is attached. Responses are also received more quickly.** The results may also have more general application if extended to other areas of Revenue's work – personalisation appears to have a substantial influence on taxpayer behaviour.

Text-Analysis: In the final question on the survey, we asked respondents if they would like to add a comment on any aspect of the survey or suggest service improvements. Text analysis on this question provides a useful overview of the general conversational themes coming out of the comments section. **The largest proportion of responses relates to ways in which Revenue could help businesses including deadline flexibility, providing training and simplifying taxes and returns.** The second largest proportion of responses relates to general praise for Revenue as an organization and for Revenue staff, particularly when compared with other areas of the public sector. Comments tended to be quite positive towards ROS and also indicated that Revenue has improved in recent years. **A further category of responses suggested that Revenue could do more to tackle the shadow economy and in particular that more direct contact numbers should be made available including a direct shadow economy reporting number.**

1 Introduction and Methodological Approach

1.1 Introduction and Background

This Report presents the results from the small and medium-sized enterprise (SME) survey 2013 which was conducted by Revenue's Research and Analytics Branch (RAB) between November 2012 and March 2013. The survey represents the third in a series of SME surveys carried out by the Branch since 2006. Two thousand survey forms were issued to VAT registered customers. The overall response rate was 46%. This response rate allows robust conclusions to be drawn about Revenue's small and medium-sized business customer base.

1.2 Objectives

The survey was conducted to try to quantify a number of issues relating to small and medium-sized businesses. The four broad areas covered by the survey are '*Customer Service'*, *Filing Your Annual Income Tax Return'*, '*Factors that Influence Compliance'* and '*Shadow Economy Activity'*. The report focuses on a range of themes that can be explored within these areas which include the following:

➢ Customer satisfaction with the service from and experience of Revenue;

➢ Administrative burden on SME businesses;

➢ Usage, satisfaction and preference with regard to channels of communication with Revenue;

➢ How SMEs are reminded to file their annual income tax return;

➢ Factors that influence the compliance of SME businesses;

➢ Difficulties encountered paying taxes;

➢ Customer satisfaction with Revenue's advice and helpfulness in resolving difficulties;

➢ Customer perceptions of the incidence and impact of shadow economy activity;

➢ Customer knowledge and views on anonymous reporting of shadow economy activity; and

➢ Capturing demographics.

1.3 Objectivity and Confidentiality

As the survey was conducted directly by Revenue, a number of steps were taken to ensure objectivity and assure confidentiality to respondents.

➢ A covering letter was issued with each survey (see appendix), which invited the customer to participate: the survey was entirely voluntary.

➢ The covering letter (see appendix) explained the reasons for conducting the survey, explained that the Research and Analytics Branch (RAB) of the Revenue Commissioners was conducting it, and that responses would be treated confidentially. These points were repeated on the survey form itself. The data from respondents was captured and analysed by RAB, and is only accessible to the Branch. Contact names and telephone numbers for RAB staff members were clearly provided in the covering letter. Respondents were advised to contact the Branch if clarification regarding any aspect of the survey was required.

➢ The questions were worded in a neutral way so as to minimise bias in the responses of the respondents.

➢ Where appropriate, the option of giving a 'No Opinion' answer was provided. A minority of cases used this option.

➢ Comment boxes were offered throughout the survey form.

1.4 Summary of Methodology

A detailed methodological approach was undertaken to ensure rigorous analysis and representative results. A summary of the methodology is shown in the figure overleaf.

Survey questions were designed in consultation with a range of business areas across Revenue including the Collector Generals (CGs), Corporate Affairs and Customs Division (CACD) and Planning Division (PD). Once designed, both the survey forms covering letters were printed in Revenue's Print Centre. Behavioural experiments were designed at this stage drawing on the international research literature.

An important consideration of the design of the survey was to maximise the chances of the business receiving and completing the survey. To this end, and in keeping with the approach taken in previous SME surveys, the sampling frame was drawn from businesses that had filed a bi-monthly, tri-annual or bi-annual VAT return (VAT3) between the 17th and the 23rd September 2012 and who fell within the case size range of A to F.[1] We then cleaned this sample, removing a wide range of cases which were unlikely to respond including foreign cases, cases in liquation or receivership, extremely small cases, cases where there was a DLO on record, duplicate cases and cases with errors. Next, we selected a random sample of ~2,000 cases. The sample therefore aims to represent all VAT registered businesses with a case size A to F. In June 2013, there were a total of ~248,000 VAT registrations of which ~131,000 (53%) had a case size A to F. Lastly, the survey questionnaire and an accompanying covering letter were sent to all sample cases requesting completion of the survey in mid-November 2012. A follow-up reminder letter and survey questionnaire was re-issued to non-respondents in February 2013.

Data was recorded and input into a database as responses were received. Records were subsequently checked for accuracy. With regard to analysis, a range of techniques were used. Throughout the report we carry out descriptive, frequency and bivariate analyses which is often supported by statistical testing and complemented by relevant text-analysis. We also undertook multivariate analysis such as econometric modeling and segmentation analysis. In addition, comparative trend analysis was undertaken with previous SME surveys. A randomised experiment was also conducted as part of the behavioural analysis.

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[1] Case size of A to F refers to VAT filers with an average VAT liability greater than €1 and less than €6,000.

Figure 1: Summary of methodology

Phase I: Survey Design & Development	Phase II: Selection of Sample & Issuing of Survey	Phase III: Data Collection	Phase IV: Data Analysis	Phase V: Finalisation of Report & Dissemination
1.1 Consultation with relevant business areas across Revenue (PD, CACD, CGs etc)	2.1 Selection of Target Population from VAT3 File in conjunction with CGs	3.1 Recording and Inputting of Survey Responses	4.1 Contextual Analysis; Frequency Analysis; Descriptive Statistics; Bivariate Analysis	5.1 Production of Final Report
1.2 Design of Survey Format & Questions (30 in total)	2.2 Data Cleaning (including Removal of Businesses in Receivership, Foreign Businesses)	3.2 Checking of Recording and Inputting	4.2 Comparative Trend Analysis with SMEs 2006 and 2008	5.2 Dissemination and Presentation of Results and Analysis
1.3 Design of Covering Letter	2.3 Selection of Random Sample (2,000 cases)		4.3 Text Analysis of Open-Text Questions	
1.4 Printing of Survey Forms and Covering Letters in conjunction with Print Centre	2.4 Selection of Random Sample for Behavioural Experiments (300 cases)		4.4 Analysis and Evaluation of Behavioural Experiments	
1.5 Design of Behavioural Experiments	2.5 Issuing of Letters/Covering Letters in Nov 2012 and Feb 2013 (reminders) with John's Road		4.5 Econometric Modelling & Segmentation analysis	

1.5 Assessment of Representativeness

As mentioned, the main purpose of the methodological approach taken, particularly randomisation and large sample size, is to produce a sample that is representative of the total population of small and medium-sized taxpayers who file VAT returns. In this section, we briefly provide an empirical assessment of the extent to which the sample is representative.

To illustrate the issue, it is hypothetically possible that our sample could be systematically biased in some way – it could, for instance, contain a large cluster of very small taxpayers or it could have disproportionate numbers from one sector. If this were the case, it could cause the results to be statistically biased. Ideally then, we would like the balance of characteristics in the sample to be as close as possible to the population to ensure maximum representativeness.

There are a number of ways to test this empirically. One way is to compare the distributions of selected characteristics in the sample (929) with the sampling frame (~36,000). For the purposes

of this exercise, we select two characteristics, namely, size (measured by case size ranging from A to F) and sector (Nace Rev. 2).

The results, shown below, indicate that, for all observed characteristics, the distributions in the SME sample closely approximate those of the sampling frame. This suggests that random sampling has been implemented correctly. We can assume then that unobservable characteristics are also approximately similar across the two groups. Overall, this assessment provides us with confidence in the representativeness of the survey results.

Figure 2: Comparison of Size and Sector - SME Sample and Sampling Frame
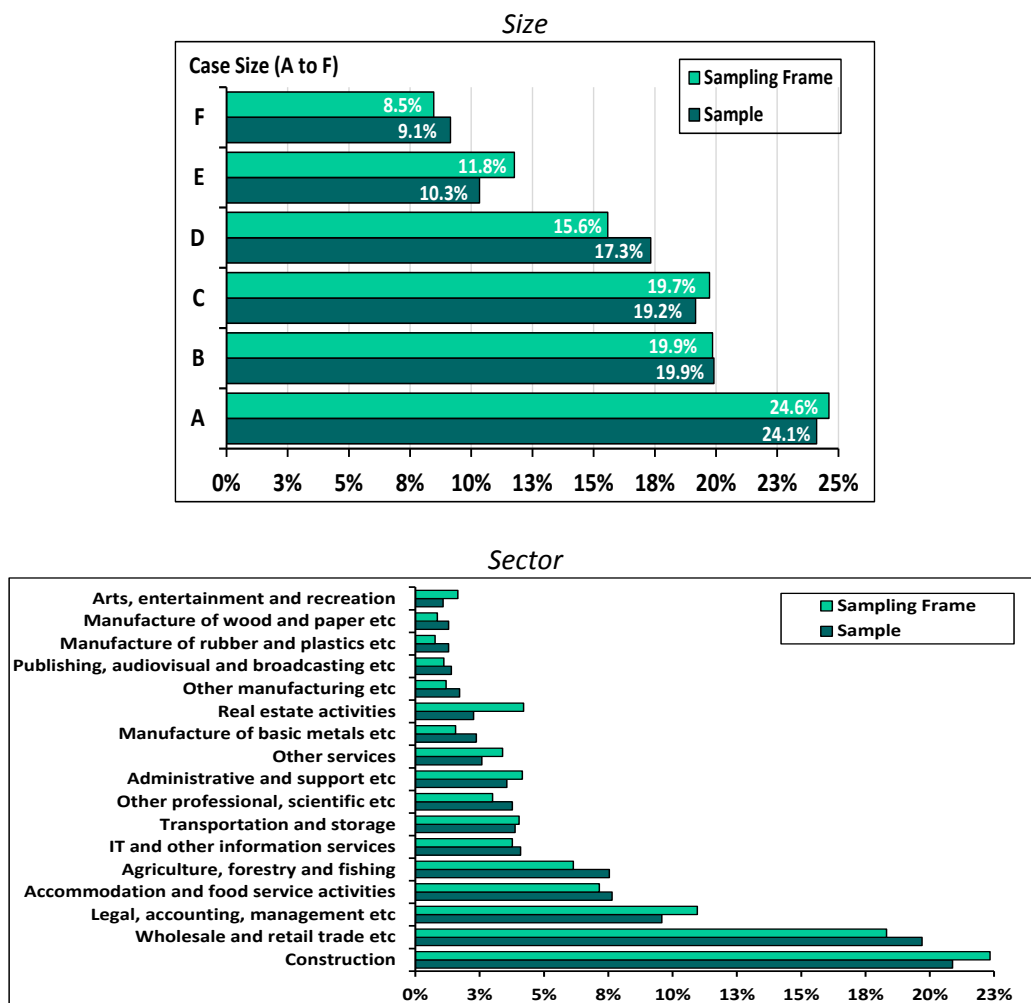
1.6 Interpretation of General Results

A number of general points are worth noting on the interpretation of results. Questions asked in the survey often allowed respondents to indicate more than one category as a response. Thus categories are not mutually exclusive in many instances.

In some cases, respondents did not respond to a question by leaving the question box blank. Sometimes we exclude blank responses and only present analysis for those who responded. However, in other cases, we do present the number or proportion of non-responses or blanks because they can, in themselves, be informative. For example, certain questions asked were of a sensitive nature, and a high degree of non-response may indicate response bias.

We also present trend analysis across the three surveys (SME 2006, SME 2008 and SME 2013). These results should of course be considered in the context of the dramatic economic and financial changes in the wider economy over this period.

In parts of the report, we break down the analysis by size (business case size) and sector (Nace Rev.2 and Nace Rev. 4). The advantage of this approach is that more granular information is clearly valuable. However, the sample sizes associated with this analysis are smaller and this has implications for the robustness of the analysis. These results are less representative and more susceptible to bias compared with the overall results. As a rule of thumb, we should be cautious about sample sizes of less than 30. This should be borne in mind when interpreting these results.

1.7 Interpretation of Text-Analysis Results

While most questions in the survey are 'closed-ended' in that there are a set number of possible answers, we also included a set of 'open-ended' questions where respondents have more freedom to frame their answer in the form of a comment. 'Open-ended' questions have a certain advantages over 'closed-ended' questions. They provide additional insight into respondents thinking by allowing them to better explain their answers and questions are not limited to those expected by the survey designer.

Since the volume of open-text responses was large in the survey, we used text analysis software to extract and summarise the data. The software can be used to automatically categorise responses with related themes into sets of text categories. These categories are not mutually exclusive – for instance, a

single long response may be, and often is, included in several of the categories. In addition, if a single response is short but contains many themes, it may also be included in several categories.

With respect to interpretation then, the text categories are not necessarily equally representative of all respondents' views *per se*, but rather they aim to represent the extent of the thematic areas being discussed. Loosely, the text analysis aims to provide an overview of the dominant conversational themes being discussed by the SME taxpayer population.

1.8 Response Rate

Overall, we achieved a response rate of 46%, an effective sample of 929. The combination of random selection and the large sample size ensures that the results are both robust and representative. This response rate is significantly higher than similar private sector surveys of SMEs and is in line with CSO response rates for small business surveys. In addition, given the ongoing difficulties faced by the SME sector in Ireland, our view is that this is a strong response rate.

Table 1: Response rate statistics

Cohort	Cases
Population of Interest (All Businesses on VAT3 File in 2012)	~248,000
Population of Interest with a case size A to F	~131,000
Sampling Frame	~36,000
Sampling Frame with a case size A to F	~17,000
Random Sample	2,026
Overall Response Rate	**46%**

1.9 Acknowledgements

Research and Analytics would like to thank all those who responded to the survey. The information produced will be used to review and improve Revenue's service to its business customers.

2 Context

2.1 The SME Economy in Ireland

The SME sector makes an important contribution to economic activity and employment in the Irish economy. The most recent CSO Business in Ireland survey (2011) reports that SMEs account for 99.8% of active enterprises, 68.6% of persons engaged, 62.0% of employment, 50.1% of turnover and 46.0% of gross value added (GVA)[2]. It is clear from the figures that while larger businesses tend to generate a greater share of turnover and value added; SMEs produce the majority of employment in the economy.

In general, the SME sector is characterised by indigenous, non-exporting, employment-intensive and services firms. The sector is highly reliant on GDP and domestic demand which includes household consumption, government consumption and investment. The sector faces a range of challenges including competition, access to finance, regulation and, from Revenue's perspective, the overall tax burden. In Budget 2014, the Government announced 25 measures to encourage jobs and growth many of which can benefit SMEs including VAT and excise anti-fraud measures to tackle the shadow economy.

2.2 Revenue and Reducing SME Compliance Costs

Revenue supports the SME sector by aiming to make it as easy as possible for taxpayers to be compliant. This includes simplifying Revenue procedures, reducing the costs associated with meeting tax and duty obligations and also providing quality customer service. For instance, Revenue continues to promote electronic channels as the default way of doing business with taxpayers and is one of the most advanced tax administrations internationally in this regard.

Compliance costs typically have a significant fixed cost component[3] and so tend to impose a relatively higher burden on SMEs than larger businesses. An OECD study (2009) on the taxation of SMEs[4] shows that total business tax compliance costs tend to be higher for large companies but, as a percentage of sales, are much higher for SMEs. Consequently, Revenue's simplification procedures and the reduction of tax compliance costs generally are likely be of the greatest benefit to SMEs.

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[2] GVA is an economic indicator, similar to GDP, which measures the output of a sector minus consumption.

[3] Tax compliance has a fixed or common component for all taxpayers such as recording transactions, maintaining financial and tax accounts, calculating tax liabilities, making payments.

[4] Taxation of SMEs, Key Issues and Policy Considerations, OECD Tax Policy Studies, 2009.

2.3 SME Survey Sample in Context

Before presenting the analysis and results, it is useful to contextualise our SME survey sample by comparing it with the total SME population in the Irish economy more generally. Under the widely cited European Commission (2005) definition of SMEs[5], businesses can be categorized by employment size into micro enterprises (less than 10 employees), small enterprises (10 to 49 employees), medium enterprises (50 to 250 employees) and large enterprises (greater than 250 employees). We apply this definition to draw comparisons. According to the aforementioned CSO Business in Ireland survey, there were ~189,000 active enterprises with over 1.2 million persons engaged.

The results, reported in the table, provide some evidence that our sample may be reasonably representative of the total SME population in the economy. It is seen that the majority of businesses are micro enterprises with less than 10 employees (91%). Of these micro enterprises in the sample, about one-quarter have no employees, one-quarter have one employee, a further quarter have two or three employees and the final quarter have somewhere between four and nine employees[6]. With respect to employment, it is seen that there are significant differences in the relative shares of employment across different size firms. Micro enterprises in the SME sample constitute 44% of total employment compared with 31% in the total population. The three relative shares for micro, small and medium sized enterprises taken together are however arguably broadly similar to the general economy.

Table 2: Comparing enterprise size and employment, SME survey and the general economy

	Share of Enterprises		Share of Employment	
Employment Size Category	**SME Survey Sample**	**Economy-Wide SME Population**	**SME Survey Sample**	**Economy-Wide SME Population**
Micro firms (<10)	90.6%	90.8%	44.2%	31.0%
Small firms (10 – 49)	8.6%	7.7%	31.3%	37.8%
Medium firms (49 - 250)	0.8%	1.4%	24.5%	31.2%
Total SMEs	**100%**	**100%**	**100%**	**100%**

Source: Business in Ireland 2011, CSO. Note: SMEs in sample defined as described in methodological section. Our sample selection definition is different than the generally agreed international definition of SMEs, which was established by the European Commission on 1 January 2005. For comparison purposes, we recategorise our sample according to responses to question 28 (how many employees in total does the business employ?).

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[5] Other definitions have been cited but this one appears to be used widely. The full report is as follows: The New SME Definition, User Guide and Model Declaration, European Commission, 2005.

2.4 SME Survey Sample Demographic Characteristics

A final way we can obtain an understanding of our survey sample is by reporting responses to the business demographic questions (Part 5). Demographic characteristics are presented in Figure 3 below.

A key objective of the survey was to measure customer views and, as part of the survey design, we aimed to receive responses from the owner of the business. The results show that 85% of survey responses were completed by the business owner, an improvement on the previous survey. Text-analysis of this question reveals additional reported roles including accounts staff, bookkeepers, directors, partners and secretaries. We also asked about the legal structure of the business and about half (51%) reported a limited company, 41% a sole trader and 6% a partnership. In addition, over 1 in 3 businesses (37%) operate a *website*. 11% operate a *website that is used for trading*. With respect to the number of years in operation, about one-quarter (26%) are relatively new businesses and have been in operation less than five years. 7% indicated that this was their first year of business.

Figure 3: Business Demographics

Role of respondent in the business (Q23)
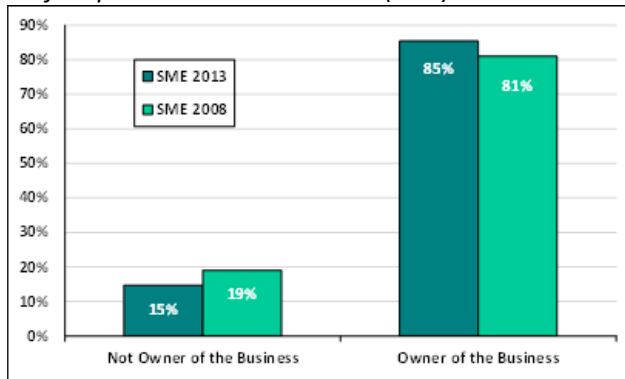
Legal Structure of the business (Q24)

Operation of on-line facilities (Q26)
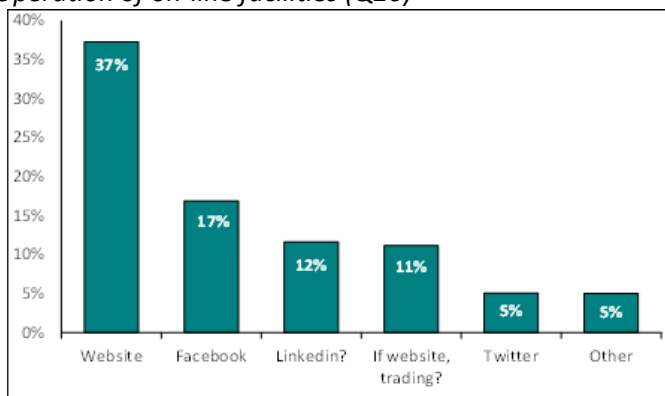
Number of years in operation (Q27)
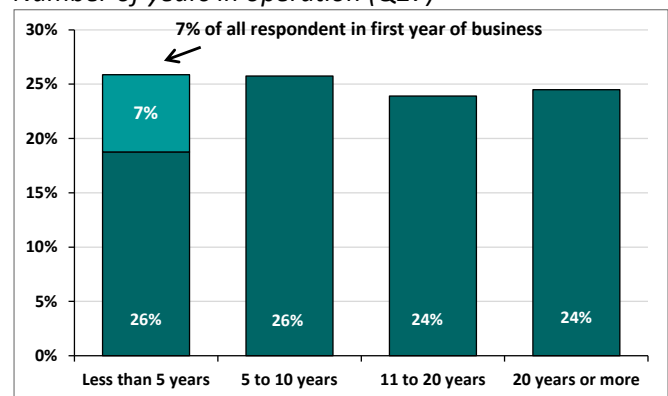
Note: On question 26, multiple responses were possible and the results are not mutually exclusive.

3 Overall Customer Service Satisfaction with Revenue

Revenue invests considerable resources in maintaining and improving customer service delivery. It is critical that Revenue measures and reviews satisfaction levels with the service and experience it provides to its customers. Thus one of the main focuses of this survey was an attempted quantification of this theme for small and medium sized businesses. In question 10 we asked SME businesses how they rate their overall satisfaction with Revenue customer service. Of those who responded, 86.0% answered either 'very satisfied' or 'satisfied'. This compared with 84.0% and 86.7% in 2006 and 2008 respectively. The proportion of respondents answering either 'very dissatisfied' or 'dissatisfied' was 3.7%, 2.5% and 2.3% in 2006, 2008 and 2013 respectively. The main interpretation is that SME customer satisfaction with Revenue remains high and has been remarkably stable in recent years despite the challenging economic environment.

Figure 4: Overall satisfaction with Revenue customer service (Q10)
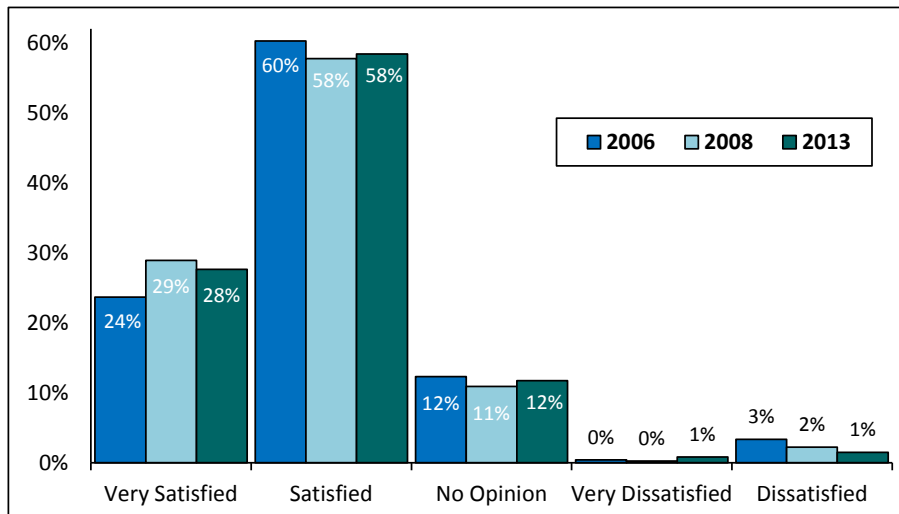
Note: 97% responded to this question.

The results of text analysis on question 11, where we ask respondents to comment on any aspect of the survey, provides some insight into why we may be observing these levels of customer satisfaction. According to the results, the largest text category related to positive comments about the helpfulness and efficiency of Revenue staff. In addition, we also found that satisfaction levels are very consistent when split by business size and by sector. This suggests that Revenue is providing a good service to the majority of SMEs of all types.

4 Administrative Burden on SME Taxpayers

Revenue supports the SME sector by aiming to make it as easy as possible for taxpayers to be compliant. This includes simplifying Revenue procedures and reducing the costs associated with meeting tax and duty obligations. In this section, we examine who maintains the records required for Revenue purposes and how many hours per week it takes to deal with Revenue related matters.

4.1 Maintenance of Records

In question 1 we asked respondents 'who maintains the records required for Revenue purposes?' The main result, shown in the table, is that most respondents indicated that records are maintained by an *accountant* (61%) or by *the person themselves* (49%). These two categories have significant cross-over where both *the person themselves* and an *accountant* maintain the records in combination (30%). About 15% of respondents indicated that either an *employee* or a *spouse/partner/civil partner* maintained the records. Text analysis indicates that additional categories include other family members and friends.

Figure 5: Maintenance of records required for Revenue purposes (Q1)
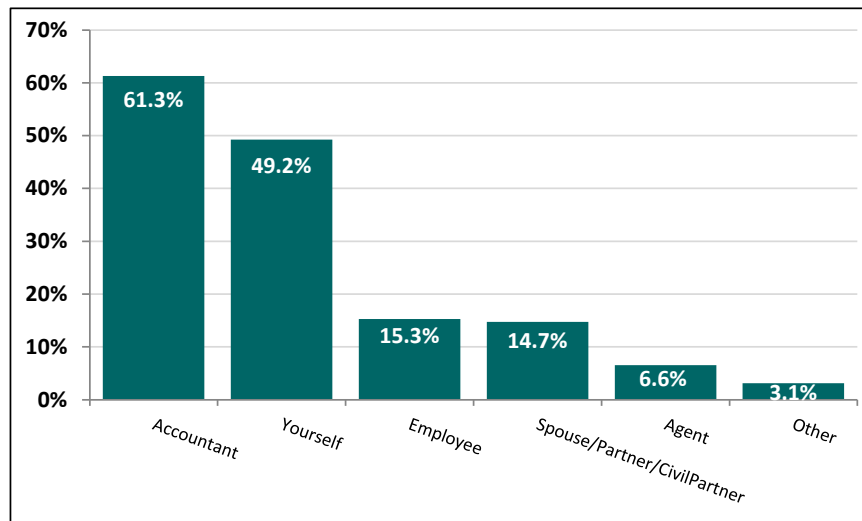
Note: Multiple responses were possible and answers are not mutually exclusive. Proportions do not sum to 100%.

4.2 Maintenance of Records by SME Size

We also examine the response categories according to the size of the SME where size is measured by the number of employees. This time we present the analysis in a slightly different way by reporting the distributions of responses. For instance, from the overall total of responses (not respondents as before), 44% reported that records were kept by an *accountant*. As can be seen in the table below, we can then usefully compare this to the distributions of responses according to the size of the businesses.

We have already seen that accountants are the most likely people to maintain the records for Revenue purposes in SMEs. The use of an *accountant* remains high and quite consistent across SMEs of different size although there is some evidence to suggest that very large SMEs are slightly less likely to use them.

As expected, compared to larger SMEs, smaller SMEs are much more likely to report that their accounts are maintained either by *themselves* or by a *spouse, partner or civil partner* (spouse hereafter). 39% of SMEs with one employee maintain the records *themselves*. For SMEs with 4 to 10 employees, the same proportion is 28% and, for SMEs with more than 10 employees, it falls again to 21%. Further, 12% of SMEs with no employees and 13% of those with one employee report that their records are maintained by a *spouse or partner*. For large SMEs with more than ten employees, the same proportion is 3%.

Conversely, *employees* appear to be far more likely to maintain records in larger SMEs. 3% of SMEs with 1 employee maintain their records using an *employee*. For SMEs with 4 to 10 employees and for those with more than 10 employees, the same proportions are 21% and 31% respectively.

Table 3: Maintenance of records by size of business

Employee Category	Accountant	Yourself	Employee	Spouse/ Partner*	Agent	Other	Overall
No Employees (188)	43%	37%	0%	12%	6%	2%	**100%**
1 Employee (188)	42%	39%	3%	11%	4%	2%	**100%**
2 - 3 Employees (213)	42%	33%	9%	10%	5%	1%	**100%**
4 - 10 Employees (180)	38%	28%	21%	8%	2%	3%	**100%**
> 10 employees (81)	36%	21%	31%	3%	4%	4%	**100%**
Total	**44%**	**35%**	**11%**	**11%**	**5%**	**2%**	**100%**

Note: Only those responding to Q28 (no. of employees) are included (850 in total); *Spouse/partner/civil partner.

4.3 Time Dealing with Revenue related matters

In question 2, we asked respondents to estimate how many hours per week it took them to deal with Revenue related matters. The main finding, outlined in the table, is that 39% indicated that they spent *an hour or less* while 35% indicated between *1 and 2 hours* respectively. All in all, about 3 out of 4 (74%) spent less than two hours per week while the remaining one-quarter (26%) were relatively evenly split between the remaining categories of *2 to 3 hours*, *3 to 4 hours* and *more than four hours*.

With respect to changes since 2006, the results show that respondents have indicated that they now spend slightly more time on Revenue related matters than in previous years. A smaller proportion of respondents are spending *an hour or less a week* and a higher proportion are spending 3 hours or greater.

Figure 6: Compliance burden – hours per week on Revenue related matters (Q2)
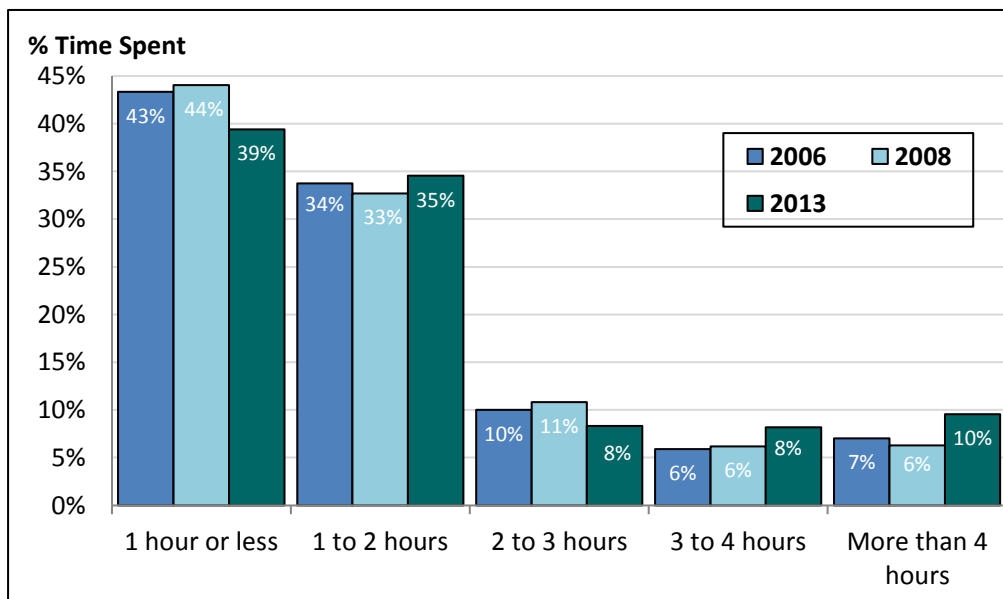
4.4 Time Dealing with Revenue related matters by Sector

We expect the costs associated with paying taxes to differ across sectors and also for businesses of different size. We investigate this empirically by considering the time spent on Revenue matters for selected sectors. The results show that, compared to the overall breakdown, SME respondents in the *agricultural* and *legal, accounting, management and architecture* sectors spend the least amount of time on Revenue related matters while those in the *wholesale and retail trade* sectors spend the most.

Time spent on Revenue matters by SMEs in the construction sector is closely in line with the overall breakdown.

Table 4: Time spent on Revenue related matters, selected sectors

Time Spent (hours)	Accom. and food	Agriculture	Construction	Legal, accounting, management, architecture	Wholesale and retail trade	Overall
1 or less	30%	54%	39%	39%	29%	**39%**
1 to 2 hours	41%	30%	36%	46%	33%	**35%**
2 to 3 hours	14%	7%	6%	6%	11%	**8%**
3 to 4 hours	7%	0%	10%	3%	15%	**8%**
More than 4 hours	9%	9%	9%	7%	12%	**10%**
Total	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

Note: Blank responses (29%) are excluded for the purposes of the analysis. Only sectors with a sample size greater than 40 are selected. Construction and wholesale/retail trade have sample sizes in excess of 100.

4.5 Time Dealing with Revenue related matters by SME Size

We also examine the compliance burden on SMEs in hours per week according to the size of the SME where, again, size is measured by the number of employees. As in the previous size analysis, we present the analysis in a slightly different way by reporting the distributions of responses.

Some of the distributions reported are bimodal (they have two peaks) and are confusing to interpret. However, if we truncate the responses at greater than and less than 3 hours per week a clear and expected trend emerges - larger SMEs spend considerably longer on Revenue related matters. In other words, we can usefully interpret the results by asking a slightly different question, namely, what proportion of respondent SMEs spend more than 3 hours per week on Revenue related matters? The results are as follows.

About 1 in 10 small SMEs (either no employees or one employee) take more than 3 hours to deal with Revenue matters. For mid-sized SMEs (those with 2 to 3 employees and 4 to 10 employees) the proportion increases to up to 1 in 4 taking more than 3 hours (19% and then 24% respectively). Lastly, for those with 10 or more employees, over 1 in 3 (34%) report taking more than 3 hours to deal with Revenue related matters. Based on the responses, it is also seen that very large SMEs are more than

twice as likely to spend more than 4 hours on Revenue matters as SMEs with 4 to 10 employees and they are four times more likely to do so than SMEs with 2 to 3 employees.

As we move from SMEs with 1 employee to 2 or 3 employees, time spent on Revenue matters clearly increases – the proportion spending 2 or more hours approximately doubles from 14% to 29%. Similarly, for SMEs with 4 to 10 employees, the same proportion increases again to 37%.

Table 5: Time spent on Revenue related matters by size

Employee Category	1 hour or less	1 to 2 hours	2 to 3 hours	3 to 4 hours	More than 4 hours	Overall
No Employees (127)	47%	31%	10%	6%	6%	**100%**
1 Employee (129)	58%	28%	4%	9%	2%	**100%**
2 - 3 Employees (161)	31%	40%	10%	11%	8%	**100%**
4 - 10 Employees (136)	32%	32%	13%	13%	12%	**100%**
> 10 employees (62)	23%	39%	5%	2%	32%	**100%**
Total	**39%**	**34%**	**9%**	**9%**	**9%**	100%

Note: Only those responding to Q28 (no. of employees) and to Q2 (hours per week) are included (615 in total). Note also there are slight differences from previous overall analysis because not all respondents answered Q28.

In question 3, we asked respondents which aspects they find most burdensome and why. Text-analysis indicates that the largest portion of responses related to having no difficulties or that dealing with Revenue related matters was straightforward. If we opt to exclude these responses, we find that the most burdensome area for respondents were as follows:

❑ **Administration of VAT and Returns:** The largest proportion of responses related to the administration of VAT. This included collecting VAT documents, understanding the VAT liability and making VAT returns. Filing returns generally was found to be the second largest category.

❑ **Phone Service:** Respondents indicated two primary issues in relation to phone service. First, they indicated that there were sometimes long waiting times on the phone and, second, they indicated difficulties being able to contact the correct area to answer a query.

❑ **Satisfaction with ROS:** Some respondents indicated that ROS can be slow at times and also cited occasional technical difficulties. A separate text-category indicated dissatisfaction with ROS on the basis they did not have a high level of computer literacy.

5 Channels of Communication

In Part I, we asked a range of questions regarding channels of communication between customers and Revenue. These channels were *telephone*, *Revenue On-Line Service (ROS)*, *letter/ fax*, *email*, *calling in person* and the *Revenue website*. Questions on usage rates, satisfaction levels and preference for each channel were asked in addition to questions on issues that required more than one contact. We began by asking if respondents had contacted Revenue in the last 12 months. The main result, reported in the table, shows that just over half (55%) of respondents contacted Revenue over the past year.

Table 6: Contact with Revenue (Q4)

Question	Yes	No	Total
Q4: Did you contact Revenue in the last 12 month?	55%	45%	100%

Note: Not all businesses responded to all questions. For the purposes of this result, only responding (non-blank) businesses are included (94% responded).

We might also be interested in investigating which types of business customers are more or less likely to contact Revenue. By sector, we find evidence that SME businesses in the areas of *construction*, *professional services (legal, accounting, management, architecture)* and also *Information Technology (IT)* are more likely to contact Revenue. Among the sectors less likely to contact Revenue are *wholesale and retail trade*, *accommodation and food services* and *agriculture, forestry and fishing*. The results are presented in the figure overleaf.

We find no evidence that responding SME businesses' of different sizes differ in their degree of contact with Revenue.

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Figure 7: Contact with Revenue by sector
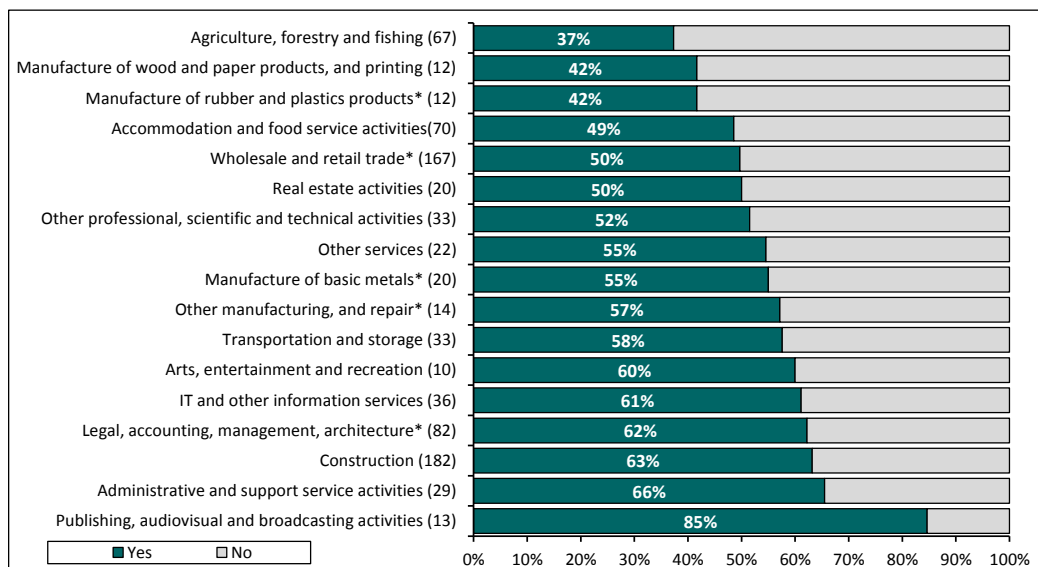
Notes: Not all businesses responded to all questions. For the purposes of the above results, only responding (non-blank) businesses are included (94% responded). Only sectors with more than ten responses are included. The number in brackets refers to the total number of responding businesses by sector (i.e. sample size). Sectors with stars have been slightly relabeled for improved fit on the chart.

5.1 Usage of Communication Channels

In question 5, we asked respondents who had contacted Revenue in the past 12 months how many times they contacted Revenue and which method of contact they used. We have already established from the previous question that just under half of respondents did not contact Revenue.[7] Question 5, which relates to only those respondent SMEs that did contact Revenue, has therefore a smaller overall sample size.

The Figure overleaf shows, of those who contacted Revenue, the proportion who used one or more of any of the methods of contact. For instance, 96% of respondents who contacted Revenue indicated that they had contacted Revenue by *phone at least once* in the last year. The remaining 4% did not contact Revenue at all in the last year using this channel. About half (48%) of respondents used a *letter or fax* to contact Revenue in the past year.

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[7] *For the purposes of this analysis, we only consider non-blank responses.*

A number of clear trends emerge from the analysis.[8] First, as expected with the introduction of mandatory e-filing, we find that usage of the *Revenue On-Line Service (ROS)* has increased sharply among SME business who contact Revenue over the period (73% to 91% usage) as has the use of *email* (41% to 61% usage). More traditional methods of contact such as *letters and fax* and *calling in to Revenue in person* have declined from 61% to 48% and from 36% to 17% respectively.

Figure 8: Respondents contacting Revenue once or more by method of contact (Q5)
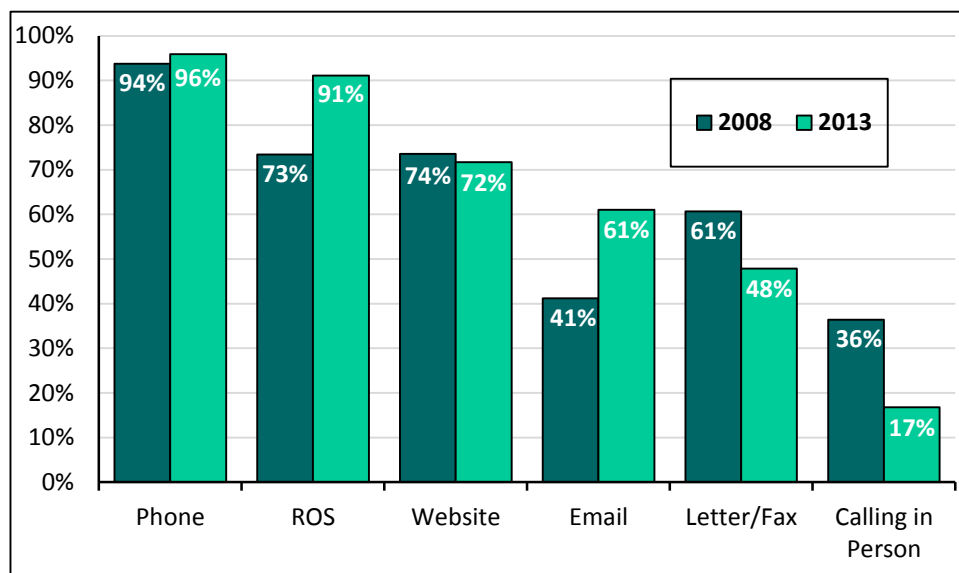
Notes: Responses are not mutually exclusive (respondents could have contacted Revenue through multiple channels). Not all businesses responded to all sub-questions. There was a high degree of blank responses over both SME surveys (ranging from 50 – 79% blank) because some respondents didn't contact Revenue and even those who did contact did not use every channel. Only responding (non-blank) businesses are included.

As shown in the table overleaf, we also find that respondents who contacted Revenue by *phone* were most likely to do so *2 to 3 times* over the year. The same was true of *email*. This compares with those who contacted Revenue via *ROS* who were most likely to do so *more than 6 times* over the year. It is perhaps noteworthy that, the typical VAT 3 filing frequency is 6 times a year. Respondents who contacted Revenue over the year were least likely to do so by *calling in person* or by *letter or fax* – the vast majority (85%) did not *call in person* while half (52%) did not use a *letter or fax*. Those who did use *letters or fax* or *called in person* tended to do so *1 to 3 times* over the year.

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[8] *We exclude the SME 2006 survey results because the questions asked had different response categories.*

We now turn to examining trends over time among those who contacted Revenue. Perhaps the most significant result is that the usage of *ROS* has increased markedly from 27% *never using ROS* to only 9% *never using ROS* and 32% *using ROS more than 6 times* to 52% *using ROS more than 6 times*. With respect to *email*, it appears to be the case that a portion of those who had previously sent no emails at all to Revenue are now sending *1 to 3 emails* over the year. The usage of *letters/fax* has fallen significantly – the proportion has gone from 39% *never using letters/fax* to 52% *never using letters/fax*. Similarly, it appears to be the case that respondents who previously would have *called in person 1 to 3 times* over the year are now opting to not call in at all.

Overall, the analysis highlights a marked shift away from the more traditional contact methods of *letters/fax* and *calling in person* and towards the more modern technological methods of *Revenue On-Line Service (ROS)* and *email*. Interestingly however, the results indicate that usage of the *Revenue website* has not changed too significantly. The usage of the *phone* contact has remained broadly the same since 2008.

Table 7: Proportions using different methods of contact, SME 2008 and SME 2013

Method Contact/ No. Times Used	Phone (96%)	ROS (91%)	Letter/Fax (48%)	Email (61%)	Calling in Person (17%)	www. revenue.ie (72%)
2013						
Never	4%	9%	52%	39%	83%	28%
Once	21%	7%	22%	20%	9%	8%
2 to 3 times	50%	19%	16%	28%	6%	24%
4 to 6 times	13%	12%	4%	4%	0%	10%
More than 6	13%	52%	6%	8%	1%	30%
Total	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**
2008						
Never	6%	27%	39%	59%	64%	26%
Once	23%	10%	21%	14%	22%	10%
2 to 3 times	45%	21%	25%	21%	11%	28%
4 to 6 times	14%	10%	7%	3%	2%	10%
More than 6	12%	32%	8%	4%	1%	25%
Total	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

Notes: This analysis refers to SME respondents who both contacted Revenue and who replied that they used the particular method of contact (i.e. blank responses are excluded).

5.2 Satisfaction with Communication Channels

We have seen that some channels were used frequently (*phone* and *ROS*) while others were rarely used at all (*calling in person*). In this analysis, we report the rates of customer satisfaction for those who used the channel in question and rated a level of satisfaction with it. Overall, a high percentage of respondents expressed satisfaction with the service they received. For each channel of contact, at least 78% of respondents were either satisfied or very satisfied. Respondents reported the highest degree of satisfaction with *ROS* (88%), *calling in person* (86%) and the *Revenue website* (84%) and relatively lower levels with *phone* (81%), *email* (82%) and *letter and fax* (78%). A small number of cases in each question indicated a degree of dissatisfaction with the channel used.

Figure 9: Satisfaction with channels of contact - number of cases (Q6)
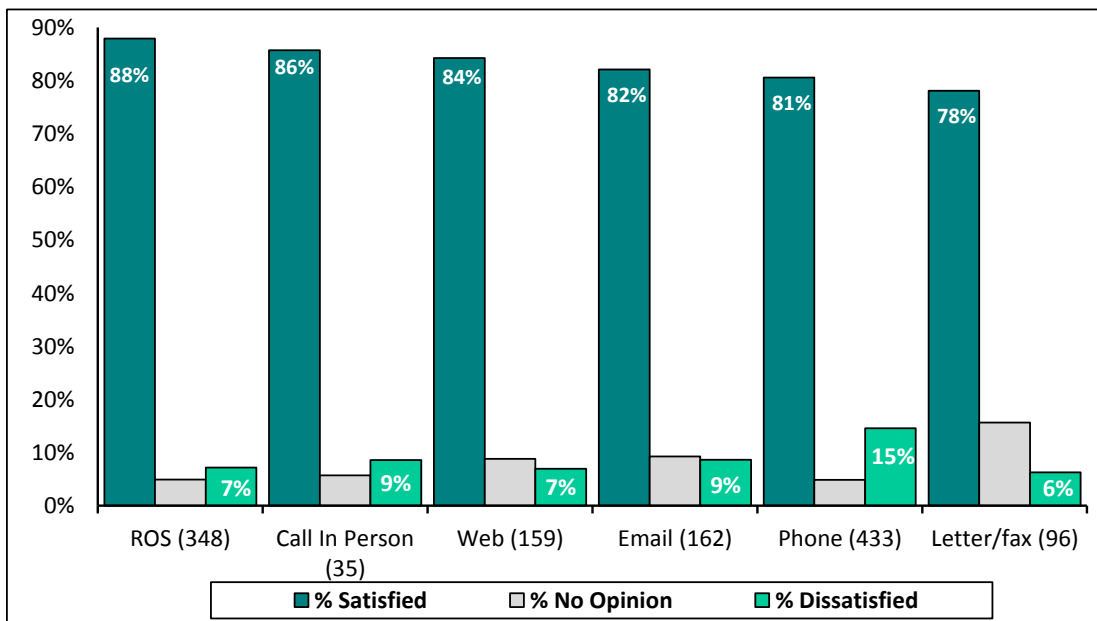
Notes: Sample sizes differ by channel since only those who responded as having used the channel in question and who rated their level of satisfaction are included. For example, 443 reported using the phone (once or more) and of these 433 (98%) rated some level of satisfaction (i.e. non-blank).

5.3 Trends in Satisfaction with Communication Channels

We also examine changes in satisfaction with channels of contact using responses from the previous SME surveys. In the SME 2008, we found that all channels with the exception of *calling in person* showed a slight decrease in satisfaction compared to the SME 2006. The results, reported in the table, indicate that overall satisfaction levels have decreased for the channels of *ROS* (-7%), *phone* (-3%) and *calling in*

person (-3). These trends are confirmed by increasing dissatisfaction for these channels. Overall satisfaction levels are found to have improved for *email* (+11%) and *letter and fax* (5%). Satisfaction with the *Revenue website* has remained the same at 84%.

As part of this question, we asked respondents to tell us the reasons for any dissatisfaction. We have seen that the highest proportion of dissatisfaction is with *phone* and this is confirmed by the responses to the open-text question. The results of our text analysis show that the most significant reason was either no response or a delay in the response to requests for information. The delay mainly refers to queuing on the automated phone line although a smaller number related to delays in responding to email queries. The second most cited reason relates to difficulty getting a staff member with the required knowledge to deal with a query.

We also investigated the decline in satisfaction with ROS from 95% in 2008 to 88% in 2013 by comparing the open-text comments that related to ROS in 2008 and 2013. Most of the difficulties with ROS related to IT issues and reluctance on the part of respondents to complete work online. It may also be the case that, following the introduction of mandatory e-filing, a new cohort of SME taxpayers began using ROS who otherwise would not have willingly done so. Thus, the decline in satisfaction, from an already high level, could reasonably be attributable to a change in user composition rather than any change in the ROS system *per se*.

Table 8: Satisfaction with channels of contact, 2006 – 2013 (Q6)

Channels of Communication	% Satisfied			% No Opinion			% Dissatisfied		
	SME '06	SME '08	SME '13	SME '06	SME '08	SME '13	SME '06	SME '08	SME '13
Telephone	85%	84%	81%	5%	3%	5%	10%	13%	15%
ROS	n/a	95%	88%	n/a	2%	5%	n/a	3%	7%
Website	89%	84%	84%	8%	13%	9%	4%	3%	7%
E-mail	80%	71%	82%	14%	14%	9%	6%	15%	9%
Letter/Fax	80%	73%	78%	12%	16%	16%	8%	11%	6%
Call in Person	85%	89%	86%	6%	4%	6%	8%	7%	9%

Note: Question on ROS not asked in SME 2006.

5.4 Issues to resolve requiring more than one contact

In questions 7 and 8, we asked respondents if they had issues to resolve that required more than one contact with Revenue and, if so, to consider the one query that required the highest number of contacts and to indicate the number of contacts made. The results, shown in the table, show that less than 1 in 5 (18%) respondents indicated that they had an issue that required more than one contact with Revenue.

Table 9: Issues to resolve requiring more than one contact with Revenue (Q7)

Question	Yes	No
Did you have any issue to resolve that required more than one contact with Revenue?	18%	82%

Note: Only responding businesses are considered.

Of those who indicated they had an issue that required multiple contacts with Revenue, the majority (62%) responded that they had contacted Revenue 2 to 3 times in the case of the one query with the highest number of contacts. Text analysis indicates that most queries tended to relate to using ROS or VAT issues and a smaller proportion related to amounts owed to Revenue, making returns and RCT. The queries relating to ROS tended to relate to IT issues and how to use ROS to make returns for specific taxes; especially VAT and RCT. Issues tended to be resolved primarily by contacting Revenue by phone or letter.

Figure 10: Contacts made on the one query with the highest number of contacts (Q8)
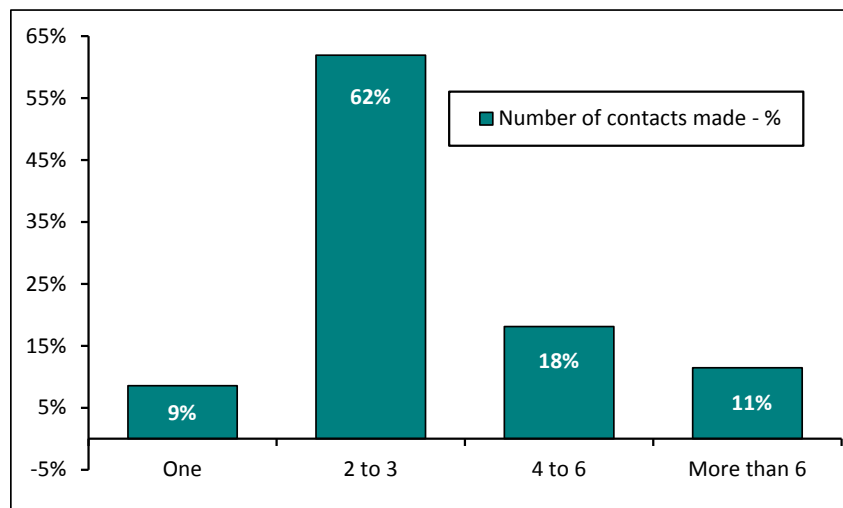
Notes: Only responding businesses who also answered 'yes' to question 7 are considered.

5.5 Preference with Channels of Communication

In question 9, we asked respondents to tell us their preference for different methods of contact on a scale of 1 to 6, where 1 is most preferred and 6 is least preferred. Before presenting the results, it is useful to recap on the results relating to the usage and satisfaction of the various channels.

Of the available channels of communication, we have seen that SME customers use *phone* the most followed by *ROS*, *the Revenue website*, *email*, *letter/fax* and lastly *calling in person to a Revenue public office.* We have also seen that those using *phone* and *email* were most likely to do so *2 to 3 times* compared with those who contacted Revenue via *ROS* who were most likely to do so *more than 6 times* over the year. Finally, we have seen that customer's satisfaction levels are broadly consistent across channels but they are most satisfied with the service they receive from *ROS*, *calling in person* and *the Revenue website.* A low level of usage and a high level of satisfaction with the *calling in person* channel may suggest that customers are opting not to use this channel for reasons other than satisfaction with the service such as the inconvenience of travelling to a Revenue office.

The results, reported in the table, show that *ROS* and *phone* are the most preferred channel of contact by a considerable margin. This is followed by *email* and then by the *Revenue website*. Lastly, *calling in person* and *letter and fax* are found to be the least preferred.

Table 10: Preference for channels of contact (Q9)

Degree of Preference	Calling in person	Email	Letter/fax	Telephone	ROS	Website
1 (most preferred)	11%	21%	6%	39%	39%	12%
2	6%	21%	11%	20%	22%	16%
3	6%	25%	17%	13%	15%	19%
4	7%	20%	19%	13%	10%	19%
5	11%	7%	29%	8%	7%	21%
6 (least preferred)	59%	6%	17%	6%	7%	14%
Total	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

Notes: Only responding businesses are considered.

5.6 The Role of an Online Presence in Contacting Revenue

In this section, we briefly consider the role that an online business presence has on whether businesses tend to contact Revenue or not. As mentioned, just over half of all respondents contacted Revenue over the past year. However, if we compare respondents with and without an online presence, we find that respondents who operate any online-facility are, *ceteris paribus*, much more likely to contact Revenue. Among respondents who operate a website, 2 in 3 (66%) contacted Revenue compared with less than half (49%) for those without a website. In other words, compared with SME respondents that do not operate websites, those that do are about 1/3 (134%) more likely to contact Revenue other things being equal[9]. We find similar results for business that use *Twitter*, trading websites, *LinkedIn* and *Facebook* accounts.

Table 11: Contact with Revenue by Online Presence

Online-Facility Operations	Contacting Revenue
Website - Yes (583)	65.9%
Website - No (346)	49.0%
Twitter - Yes (47)	65.2%
Twitter - No (882)	54.9%
Trading Website - Yes (103)	62.6%
Trading Website - No (826)	54.5%
LinkedIn - Yes (108)	63.8%
LinkedIn - No (821)	54.2%
Facebook - Yes (157)	63.0%
Facebook - No (772)	53.8%

5.7 Usage of Channels of Communication by Online Presence

Given that we have established that business with an online presence tend to contact Revenue more often, it follows that we should also examine which channels of contacts these businesses are using. In The particular, do online businesses use online channels more often and, if so, to what extent? To address this question, we focus on a comparison between businesses that operate websites and those

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[9] *For the purposes of this analysis, we assume that all other things are equal. For instance, businesses with an online presence may also have other associated characteristics – for example more employees or more revenues – which in turn may lead to more contact with Revenue.*

that do not (for convenience, we refer to these as offline and online businesses for the purposes of this section).

It is seen that, compared with offline businesses, online businesses are more likely to report contacting Revenue via *email*, *ROS* and by *phone* and are less likely to *call to a Revenue office in person*. The largest comparative difference between online and offline businesses is seen in the *email* channel – about half (52.7%) of offline businesses have emailed Revenue *once or more* compared with over two-thirds (68.8%) for online businesses. In the case of *ROS,* 90% of offline businesses have used *ROS once or more* compared with 92.2% for online businesses and the small observed difference reflects the introduction of mandatory e-filing in June 2012. With regard to *phone*, online businesses tend to contact Revenue more frequently – 22% of offline businesses contacted Revenue by *phone 4 or more times* compared with 30% for online businesses.

In the below table, for simplicity, we show the results for only *email*, *ROS* and *phone*.

Table 12: Methods of Contact by Online Presence (Operation of a Website)

Method of Contact and Times Used	No Business Website	Business Website
Phone	*(252)*	*(209)*
Never	4.4%	3.8%
Once	22.2%	19.6%
2 to 3 times	51.6%	46.9%
4 to 6 times	11.5%	14.3%
More than 6 times	10.3%	15.3%
ROS	*(213)*	*(179)*
Never	9.8%	7.8%
Once	5.6%	8.4%
2 to 3 times	19.2%	19.6%
4 to 6 times	11.7%	13.4%
More than 6 times	53.5%	50.8%
Email	*(142)*	*(147)*
Never	47.2%	31.3%
Once	18.3%	22.5%
2 to 3 times	23.2%	32.0%
4 to 6 times	4.2%	4.8%
More than 6 times	7.0%	9.5%

Note: Sample sizes are provided in brackets.

6 Filing Annual Income Tax Return

In Part II of the survey, we asked respondents how they were reminded to file their Annual Income Tax Return (Form 11). Multiple responses were possible and the responses are not mutually exclusive.

6.1 Results

3 out 4 respondents (76%) reported that they were reminded by their accountant and 39% indicated that they were reminded by direct contact from Revenue. 22% were reminded by radio advertisements compared with 17% in the case of TV advertisements. About 1 in 10 (9.9%) reported that they were reminded by the Revenue website. A very small proportion indicated that they were reminded by website advertisements and Twitter.

A small amount of respondents choosing the 'other' category indicated that they were reminded by ROS or by family and friends.

Figure 11: Reminder channels to file annual income tax return (Q12)
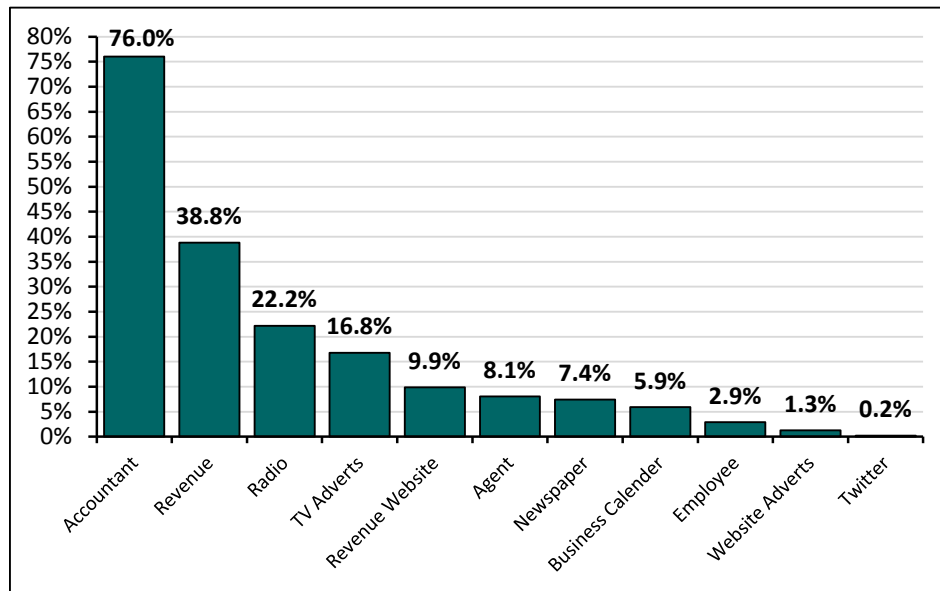
Note: Multiple responses were possible and the results are not mutually exclusive.

7   Factors that Influence Compliance

Revenue recognises that the task of collecting taxes and duties in a fair, efficient and effective manner is central to the well being of the State. Fairness is at the heart of public expectations of Revenue. Public confidence in Revenue needs to be built upon and constantly maintained. In addition, Revenue's self-assessment system and customer service charter are underpinned by the presumption of honesty of taxpayers. Dedicated and primarily risk based programmes are utilised to verify compliance. Where occasions of non-compliance are detected a range of appropriate sanctions can be applied.

In Part III, with a view to understanding SME compliance behaviour across a range of factors, we asked respondents to rate the influence of thirteen distinct factors on compliance. The factors are listed in the table below.

Table 13: Factors that influence compliance (Q13)

List of 13 Factors Examined
Factors related to Civic Responsibility
1.Because it is the law
2.Belief that other taxpayers are declaring and paying honestly
3.Your personal belief that you should do the 'right thing'
4.The fact that Revenue presumes that you have been honest in your dealings with them
5.Because Revenue makes it easy to pay taxes
6.Because tax payments are used to fund public services
Factors related to Concern of Revenue Sanctions
7.Concern that you will be audited by Revenue
8.Concern Revenue will obtain court judgment against you for failure to pay tax and publish details
9.Concern that your name will be published on Revenue's Quarterly List of Defaulters (RQL)
10.Concern at having to pay interest charges for late payment of tax
11.Concern at having goods seized by the Revenue Sheriff for failure to pay tax
12.Concern that a third party owing money to you, will be ordered to pay that money over to Revenue
13.Knowing that Revenue has the power to receive certain information about you from third parties

Notes: Factors 5, 6 and 13 represent new factors in the survey.

7.1 Introduction to Results

We divide the factors into those related to civic responsibility and those related to concern of Revenue sanctions. The distributions of the results are reported in the figures overleaf. The specific question asked was as follows: On a scale from 1 to 5, where 1 is low and 5 is high, how would you rate the influence of each of the following factors on whether you pay your correct taxes and duties honestly and on time? Where the respondents did not indicate any rating a value of 0 was assigned to that case.

7.2 Discussion of Results

Overall, the results suggest that civic responsibility plays an important role in determining SME compliance. The two most significant factors that influence compliance are reported as *a personal belief that you should do the right thing* (67% gave the highest rating of 5 on the influence scale) and *the law* (67% gave a rating of 5). This is followed by *the fact that Revenue presumes taxpayer honesty* (47%). *Revenue making it easy to pay taxes* and *tax payments being used to fund public service* both appear to exert a very similar degree of moderate influence. The results also show that *the belief that other taxpayers are declaring and paying honestly* has very little influence on compliance.

With regard to factors related to concern of Revenue sanctions, the *concern of having to pay interest charges for late payment* is reported as having the greatest degree of influence on compliance. Some of the other factors are multi-modal in nature. For example, they have relatively high proportions reporting both high influence and low influence. Factors exhibiting this distribution include *concern of being published on Revenue's Quarterly List of Defaulters, concern Revenue will obtain a court judgment against you* and *concern at having goods seized by the Revenue sheriff*. Clearly respondents' views are divided on these questions. Factors with a relatively low influence on compliance are found to be *concern that a third party, owing money to you, will be order to pay that money to Revenue* (40% gave the lowest rating of 1 on the scale) and *knowing that Revenue has the power to receive certain information about you from third parties* (28% gave a rating of 1). *Concern that you will be audited by Revenue* has a relatively high degree of influence – 28% gave it the highest influence rating of 5 while a significant proportion gave it a high rating of 4. Taking the proportion of respondents giving ratings of 4 and 5 together, a concern of audit is the most significant influence on compliance after interest payments. The Revenue sanction with the least influence was *concern that a third party owing money to you, will be ordered to pay that money over to Revenue.*

Figure 12: Degree of influence reported by compliance factor (Q13)

Civic Responsibility (Top Graph) and Concern of Revenue Sanctions (Bottom Graph)
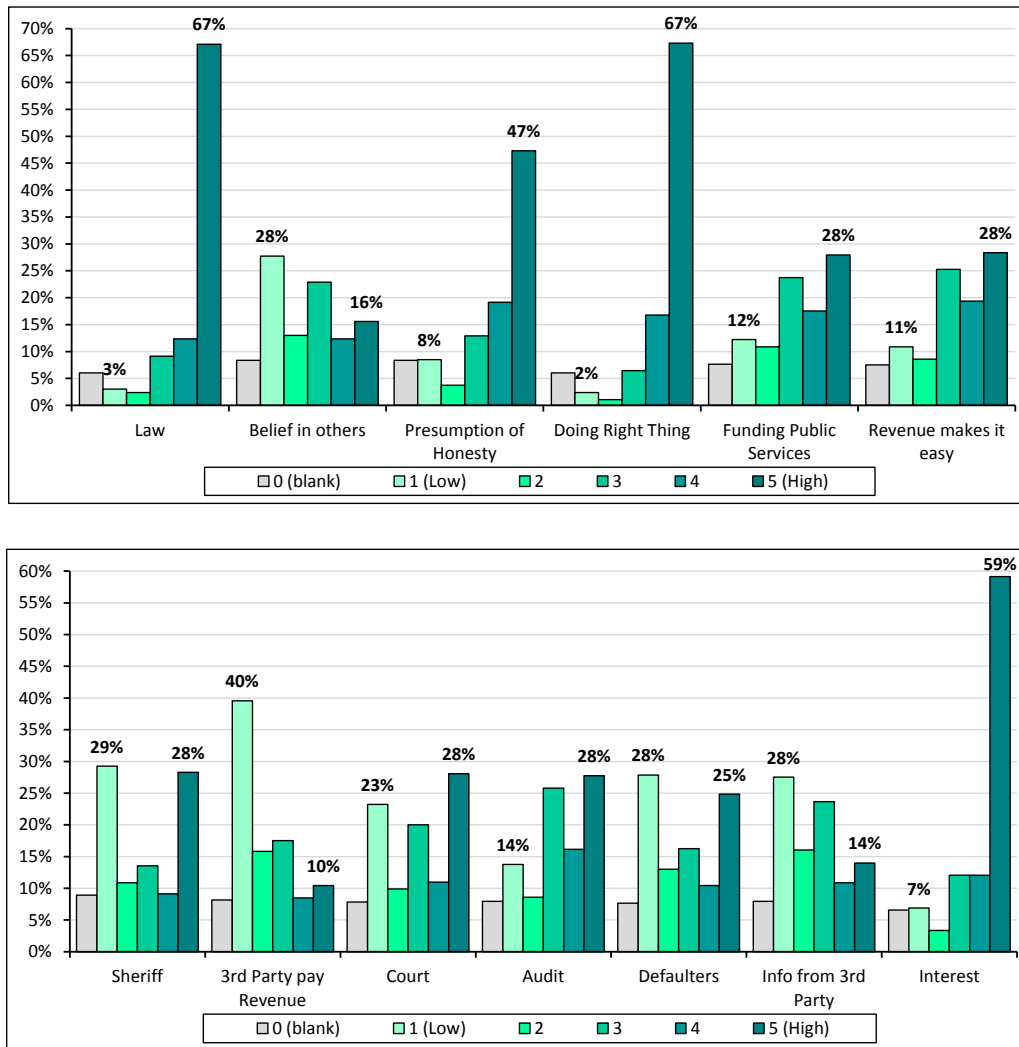
Note: Ratings of 1 (lowest influence) and 5 (highest influence) are labeled for illustration. Note that the two figures have slightly different vertical scales.

7.3 Trend Analysis, 2008 - 2013

Ten of the factors examined were also asked in the SME Survey 2008. Before discussing the results, two points are worth noting. First, many of the results are very similar which provides us with further assurance that the results are robust. Second, it is important to keep in mind that small changes of the order of 1 – 2% could be accounted for by random chance (sampling error) and therefore should not be

considered significant. The results of the trend analysis, shown in the table below, indicate that three factors have increased significantly in terms of their perceived influence on compliance.

Given that it is the most influential of the concern of Revenue sanctions factors, the large reported increase from 51% to 59% associated with *concern around interest charges* is a very significant finding. The results also show that the respondents report that *the law* (increase from 61% to 67%) and *concern of being audited* (23% to 28%) are have also increased significantly.

Table 14: Respondents reporting the highest degree of influence*, 2008 - 2013 (Q13)

Factor	2008	2013	Change
Concern at interest charges	51%	59%	8.1%
Because it is the Law	61%	67%	6.1%
Concern at being audited	23%	28%	4.7%
Concern at having goods seized by sheriff	27%	28%	1.3%
Concern Revenue will take a court judgment against you	27%	28%	1.1%
Concern you will be published on Revenue's Defaulters List	24%	25%	0.8%
Belief that other taxpayers are paying honestly	16%	16%	-0.4%
Personal belief that you should do the 'right thing'	68%	67%	-0.7%
Concern a third party, owing money to you, will pay Revenue	12%	10%	-1.6%
Fact that Revenue presumes that you are honest	49%	47%	-1.7%

Note: *Rating of 5 only. Similar analysis was also undertaken by constructing a new high influence category by combining the ratings of 4 and 5 together. The order of influence by factor is found to remain broadly the same; factors have been relabeled to fit in the table.

8 Difficulty Paying Taxes

Economic conditions in the domestic economy have deteriorated dramatically in recent years and continue to be weak this year. Consequently, many SMEs are experiencing financial difficulties. Revenue has consistently encouraged business experiencing tax payment difficulties to engage early and proactively with Revenue in overcoming those difficulties. In this section, we examine responses to questions 14 through 18, where we asked respondents about payment difficulties that they may have been experiencing in the 12 months prior to the survey.

8.1 Difficulty Paying Taxes and Reasons for Difficulties

We began by asking respondents had they experienced difficulties paying taxes over the year (Q14) and, if they had, what were the reasons for these difficulties (Q15). The results, presented in the figure below, show that 1 in 5 (19%) experienced difficulty paying taxes on time **and** in full. Just over 1 in 4 (27%) indicated that they had difficulty paying on time in total (8% on time + 19% on time and in full) while 23% had a difficulty paying in full (3% +19%)[10].

Figure 13: Difficulty paying taxes on time and in full and reasons for difficulty

Difficulty paying taxes on time and in full (Q14)
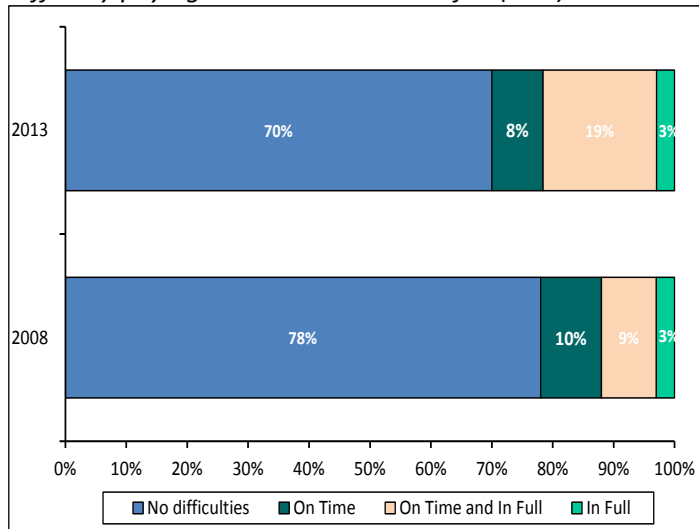
Reasons for difficulties in paying taxes (Q15)
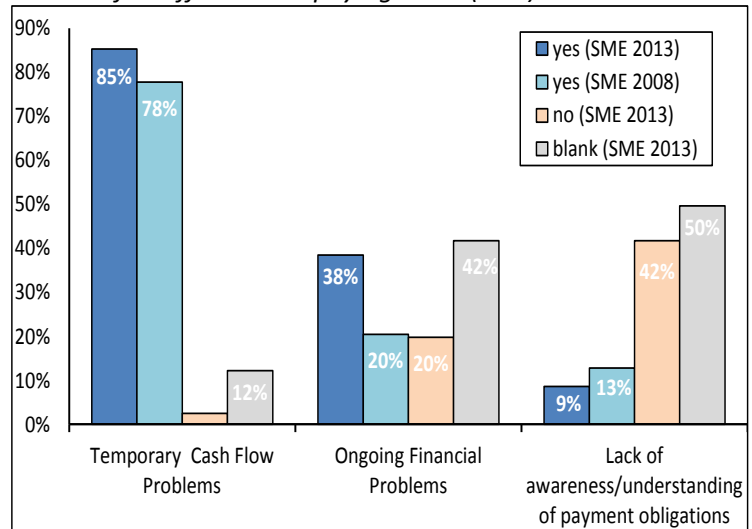
Note: Only responding businesses are included. On Q15, only respondents answering 'yes' to Q14 are included. All responses (including blank) are included.

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[10] *Overall figure is 23% (and not 22%) due to rounding.*

On a more positive note, 70% indicated that they had no difficulty paying taxes. Compared with the previous 2008 SME Survey, of particular note is that more than double the proportion of SME taxpayers are reporting a difficulty paying taxes both on time and in full.

It is also possible to examine difficulty paying taxes across sectors although the sample size is small in some cases. The evidence suggests that there is a strong sectoral correlation between the two payment difficulty types – sectors with a high proportion reporting difficulties paying on time are also likely to indicate difficulty paying in full. For instance, despite small sample sizes, the sectors of *publishing, audiovisual and broadcasting* and *accommodation and food services activities* report high levels of difficulty for both payment difficulty types while the *agriculture, forestry and fishing* sector tends to report much lower levels of difficulty paying both on time and in full. These results are likely to be influenced by prevailing economic conditions in the respective sectors.

Respondents indicated reasons for their difficulties paying taxes, which are summarized in the figure above. Most indicated temporary cash-flow problems (85%) while a smaller proportion indicated ongoing financial problems (38%). 9% indicated a lack of understanding or awareness of their payment obligations. Other issues which were indicated in the 'other' comments box included a lack of available work, IT issues and illness. Compared to the SME Survey 2008, the proportions indicating temporary and ongoing problems have both increased.

8.2 Contacting Revenue to Seek Advice about Difficulties

Next, we asked respondents who had experienced difficulties paying taxes a set of further questions. We began by asking if they had contacted Revenue or not to seek advice about their difficulties (Q16) and, if they had, how they rated Revenue's response (Q17).

The results are presented in the figure overleaf. 28% contacted Revenue about their difficulties and 69% did not. Compared with the previous survey in 2008, the results show that SME businesses are now not far off being twice as likely to contact Revenue about their difficulties (28% in 2013 compared with 16% in 2008).

In question 17, we asked respondents who had contacted Revenue to seek advice about their difficulties to rate Revenue's performance across four criteria – 'approachable', 'helpful', 'timely' and 'fair'. As can be seen in the figure, 9 out of every 10 respondents felt that Revenue was approachable (89% agreed or strongly agreed), helpful (86% agreed or strongly agreed) and timely (87% agreed or strongly agreed).

84% believed that Revenue was fair. The distribution of results is also found to be similar to the overall levels of satisfaction reported by respondents.

Figure 14: Proportion contacting to seek advice and satisfaction with Revenue's response

% contacting Revenue to seek advice about difficulties (Q16)   *Customer satisfaction rated by those seeking advice (Q17)*
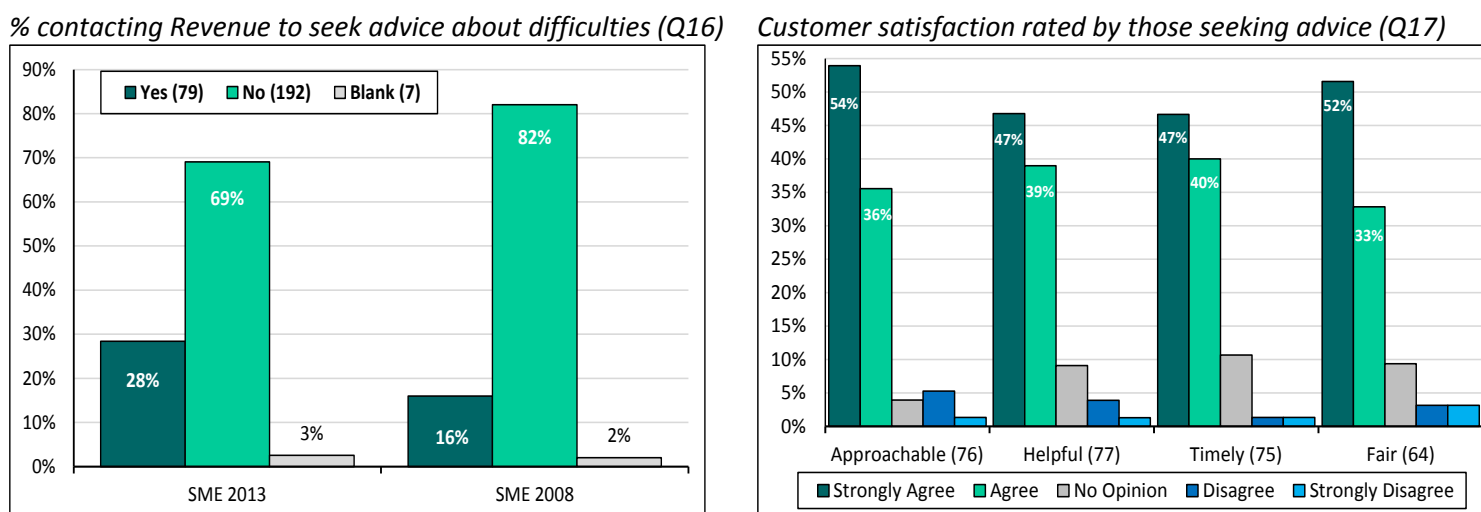
Note: On Q16, only respondents answering 'yes' to Q14 are included. All responses are included for the purposes of fuller comparison with previous results. On Q17, only respondents answering 'yes' to Q14 and 'yes' to Q16 are included. Only responding businesses are included. Blank responses were small for the first three measures (3 – 5%) but much higher in the case of 'fair' (19%). Sample sizes, which are smaller here, are reported in brackets.

In question 18, we asked respondents who had difficulties paying taxes but who had not sought advice to tell us why they had chosen not to contact Revenue. Perhaps the most notable result is the high degree of non-response to these questions. Of those who did respond, a minority indicated that they were expecting Revenue to contact them. In addition, most believed that contacting Revenue would not make any difference to the outcome. According to text analysis of the 'other' category, about half of the comments suggested the reason was that their problem was temporary.

Table 15: Reasons for not contacting Revenue to seek advice about difficulties (Q18)

Question	Yes	No	No Response	Total
I was expecting Revenue to contact me	5.7%	31.3%	63.0%	**100%**
I didn't think it would make any difference to the outcome	57.3%	10.9%	31.8%	**100%**

Notes: Only respondents answering 'yes' to one or either of Q14 and 'no' to Q16 are included. All responses (including blank) are included because of the high proportion of blank responses.

9 Shadow Economy Activity

In Part IV of the survey, we asked a new set of questions to obtain the views of SME businesses on the shadow economy[11]. Increasing the focus on the shadow economy continues to be a key and ongoing objective for Revenue. Shadow economy activity distorts the business environment by creating a competitive disadvantage for compliant businesses, reducing legitimate employment and depriving the exchequer of funding.

International studies often broadly divide shadow economy activity into undeclared work and underreporting of income. In Europe, undeclared work is estimated to account for about two-thirds of shadow economy activity while underreporting is estimated to account for the remaining one-third.[12] Undeclared work is, by definition, not observed or registered and so producing reliable estimates can be challenging.

9.1 Main Results

In questions 19 to 22, we asked respondents for their views on the shadow economy. The headline results are shown in the table overleaf. The main findings are as follows. 1 in 6 respondents (17%) indicated that they have personally seen an increase in shadow economy over the past year. Of those who observed an increase, about two-thirds (65%) felt this had an impact on their business. A high 60% of respondents indicated that they were aware that they could anonymously report an incident of shadow economy activity to Revenue. 72% said they would anonymously report specific instances of shadow economy to Revenue.

A number of further points can be made about the results. First, we know that the sensitive nature of questions on the shadow economy is likely to lead to some degree of response bias – some respondents may answer questions in a way that they believe they are expected to rather than providing true

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[11] *Shadow economy activity includes understating or non-reporting of any taxable income, such as sales or payments received for services, paying employees off the record or illicit trading in smuggled/counterfeit products. It also includes individuals doing 'nixers' in addition to their normal taxed employment.*

[12] *The Shadow Economy in Europe, 2013 – Using Electronic Payment Systems to Combat the Shadow Economy.*

answers to the best of their knowledge. For this reason, there is merit to evaluating responses in relative rather than absolute terms, for example comparing results across sectors (see later section). Second, we observe a relatively high degree of non-response in questions 20 and 22 which may suggest, *inter alia,* that some respondents were unwilling to respond to these questions due to their sensitive nature.

Table 16: Shadow economy activity results

Question	Yes	No	No Response	Total
Q19. Have you personally seen evidence of an <u>increase</u> in shadow economy activity in the last 12 months?	17%	79%	3%	**100%**
Q20. If yes, has this had an impact on your business?*	65%	16%	19%	**100%**
Q21. Did you know you can anonymously report an incident of shadow economy activity to Revenue?	60%	36%	4%	**100%**
Q22. Would you anonymously report specific instances of shadow economy activity to Revenue?	72%	15%	12%	**100%**

Note: The number of responses (non-blank) for questions 19, 21 and 22 was 897, 891 and 815 respectively.

*On question 20, only those respondents who answered 'yes' to question 19 were included (total of 161).

9.2 Text Analysis

To provide further context to the above results, we also undertook text analysis on two open-ended shadow economy questions. Before presenting the results, it is important to note that the text analysis categories are not mutually exclusive. In question 20, we asked respondents who had been impacted by shadow economy activity what that impact had been. According to the results of the text analysis, respondents felt they were impacted in a number of ways as follows:

❑ **Loss of Business and Sales:** The largest text-category related to respondents who felt that they were impacted through a loss business, customers and sales.

❑ **Undercut on Price:** A significant proportion of respondents felt they were being undercut on price by businesses who are not charging VAT. A number of comments related to specific products such as a loss of business due to the sale of counterfeit cigarettes and also specific sectors such as hairdressing. Half of the comments in this text category overlapped with the previous category on loss of business and sales.

❑ **Trading in Cash:** Respondents also reported difficulties competing with other businesses working for cash. Respondents also indicated that, under current economic conditions, consumers are extremely

price sensitive and consequently their business is losing customers to unregistered businesses offering lower prices. Social welfare fraud was also mentioned.

In question 22, we asked respondents who indicated they would not report activity to give reasons why they would not do so. The results of our text analysis suggest a number of key categories as follows:

❑ **Not their business or concern to report:** The largest text category related to respondents who felt it was either none of their business, it made them feel uncomfortable or it was not their job to report shadow economy activity.

❑ **Concern of consequences of reporting:** The second largest category related to respondents who indicated that they feared reprisal. They also indicated concern of the extent of anonymity of reporting and were uncomfortable that their information would be recorded.

❑ **Not reporting due to negative government and public sector sentiment:** Some respondents indicated a degree of understanding for shadow economy operators on the basis of the perceived level of waste in government and the broad public sector. They also indicated that they often knew the people involved, felt sympathy for struggling small business and that taxation levels were too high.

❑ **Don't want to be an informer:** Respondents in this text category felt that they would not like to be an informer, that culturally this was not done in Ireland and that it would not be in their nature to report activity.

❑ **Insufficient information to report:** A small text-category related to respondents who felt that they needed to be absolutely certain before reporting shadow economy activity and were uncomfortable doing so based on anecdotal information or rumors.

In question 30, the final question on the survey, we asked respondents if they would like to add a comment on any aspect of the survey. A number of respondents indicated that they need Revenue's help and that Revenue could help them by directly tackling the shadow economy and tax evasion. A number of specific sectors were mentioned in this context including construction, architecture and engineering, publicans and off-licenses and private housing work.

9.3 Activity by Level of Customer Satisfaction

In this section we examine whether there is a relationship between the level of satisfaction with Revenue customer service and the likelihood of reporting of shadow economy activity to Revenue. As a proxy control question, we begin by testing whether more satisfied taxpayers are more or less likely to know they can report activity and, as expected, the results show that knowledge of reporting is not

different across satisfaction levels. In contrast then, the results, shown in the table, indicate that more satisfied customers are significantly more likely to report specific instances of shadow economy activity. This result is confirmed by regression analysis of the likelihood of reporting shadow economy activity on different customer satisfaction levels. Taxpayers reporting *very satisfied* are found to be more likely to report shadow economy activity compared with those reporting *no opinion*, *dissatisfied* or *very dissatisfied* and the result is statistically significant at the 95% confidence level. This is an important result for Revenue which, *inter alia*, underlines the importance of maintaining high customer service standards.

Table 17: Knowledge and likelihood of reporting SE activity by level of satisfaction

Question	Level of Customer Satisfaction		
	Very Satisfied (245)	Satisfied (518)	Remaining Views (124)
Knowledge that you can anonymously report an incident of shadow economy activity - % responding yes (Q21)	62%	60%	60%
Would anonymously report specific instances of shadow economy activity - % responding yes (Q22)	82%*	72%	69%

Notes: *Regression analysis indicates the result is statistically significant at the 95% confidence interval. Remaining views of 'no opinion', 'dissatisfied and 'very dissatisfied' are combined to ensure representativeness. Sample sizes for each satisfaction level are provided in brackets.

9.4 Activity by Business Size and Sector

We also consider whether the likelihood of observing shadow economy activity is determined by the size of the business and the sector. Before presenting the results, it is worth reemphasising that smaller sample size reduces the reliability and representativeness of results. In particular, the sub-sectoral analysis has very small sample sizes and should be interpreted with caution. However, some of this loss of reliability is recovered in that the sample was randomly selected.

First, in the case of size, the main result is that larger SME businesses report observing shadow economy slightly less than the average but the result is not statistically significant.

A further area of examination is the extent of observed increases in shadow economy activity by sector. The results are presented in the tables overleaf. Notwithstanding the aforementioned concerns, the results show that respondents are more likely to observe evidence of shadow economy activity in

specific sectors and sub-sectors. The sector where respondents are observing the highest degree of shadow economy activity is *construction*, with 29% of SME businesses in the construction sector observing evidence of increased activity.

At the sub-sectoral level in construction, respondents find evidence of activity in *joinery installation (4322)*, *plumbing, heat and air-conditioning installation (4322)*, *construction of residential and non-residential buildings (4120)* and *electrical installation (4321)*.

Another sector with a high observed degree of activity is the rather broad sector of *legal, accounting, management, architecture and engineering*. At the sub-sectoral level, respondents are seeing evidence of increased activity in *architectural activities (7111)* and *engineering activities and related technical consultancy (7112)*. *Wholesale and retail trade* is another sector of note - 19% of respondents indicated that they observed an increase in activity over the year. At the sub-sectoral level, respondents find evidence of increased activity in *other retail sale of new goods in specialized stores (4778)* and also *retail sales of automotive fuel in specialized stores (4730)*. The sub-sector of *hairdressing and other beauty treatment (9602)* is also found to have significantly increased levels of activity.

Within the manufacturing sector, respondents have observed evidence of increased activity in the *machining sector (2562)*. Areas which respondents are less likely to indicate they have seen an increase in activity include *renting and operating of own real estate (6820)*, *beverage serving activities (5630)*, *computer consultancy (6202)* and *mixed farming (150).*

Table 18: Proportion observing increased SE activity, selected sectors*

Sector (>20 obs)	%	Yes	Total
Construction	29%	55	192
Other services	27%	6	22
Legal, accounting, management, architecture, engineering*	20%	17	85
Wholesale and retail trade, repair of motor vehicles***	19%	33	175
Other professional, scientific and technical activities	18%	6	34
Manufacture of basic metals and fabricated metal products**	14%	3	22
Agriculture, forestry and fishing	12%	8	69
Transportation and storage	11%	4	36
Accommodation and food service activities	11%	7	66
IT and other information services	6%	2	36
Real estate activities	5%	1	19
Administrative and support service activities	3%	1	30
Grand Total	**18%**	**161**	**898**

Notes: *>20 responses per sector only. Only responding (non-blank) businesses are included. *and technical testing and analysis activities; **except machinery and equipment; ***and motor cycles.

Table 19: Proportion observing increased SE activity, selected sub-sectors**

Sector (>10 obs)	%	Total	Yes
Hairdressing and other beauty treatment	43%	14	6
Joinery installation	36%	33	12
Plumbing, heat and air-conditioning installation	35%	17	6
Architectural activities	30%	10	3
Construction of residential and non-residential buildings	29%	51	15
Electrical installation	26%	31	8
Engineering activities and related technical consultancy	25%	20	5
Machining	25%	12	3
Maintenance and repair of motor vehicles	24%	21	5
Accounting, bookkeeping and auditing activities; tax consultancy	19%	21	4
Restaurants and mobile food service activities	17%	30	5
Retail sale in non-specialised stores with food, beverages or tobacco	14%	22	3
Freight transport by road	13%	23	3
Other specialised construction activities n.e.c.	12%	17	2
Business and other management consultancy activities	9%	22	2
Raising of dairy cattle	9%	11	1
Renting and operating of own or leased real estate	7%	14	1
Mixed farming	6%	32	2
Computer consultancy activities	5%	20	1
Beverage serving activities	4%	27	1
Retail sale of clothing in specialised stores	0%	11	0
Total	**18%**	**898**	**161**

Notes: **> 10 responses per sector only. Only responding (non-blank) businesses are included.

10 Behavioural Experiments

10.1 Introduction

In line with Revenue's objective of improving understanding of compliance behaviour, we undertook behavioural economic research as part of the SME Survey.

While most of Revenue's correspondence with the public is mass-mailed and generic, new research has shown that more personalised correspondence may have certain benefits. Evidence from the international behavioural research literature shows that attaching a seemingly insignificant post-it note to a survey packet along with a personalised note can lead to a significantly higher response rate. Garner (2005)[13] finds a 36% response rate among those who were sent a letter and survey only (control group) compared with a 76% response rate among those who also received a handwritten post-it note requesting completion of the survey (treatment group).

With regard to experimental design, we undertook a randomised treatment and control experiment. This approach allows us to make robust claims about causative mechanisms. From our sample of approximately 2,000 business customers, 300 (15%) were randomly assigned to the <u>treatment group</u>. We follow a very similar approach to that taken in the aforementioned Garner paper. The treatment group received the covering letter and survey questionnaire accompanied with a short personalised handwritten post-it note requesting completion of the survey. The remaining 1,700 business customers (85%) were assigned to the <u>control group</u>. This group received the covering letter and the survey questionnaire *only* with no personalised note.

Before presenting the results, it is important to note that, ideally, we would like the balance of group characteristics to be as close as possible in both the treatment and control groups. This ensures that any observed differs in the rates of response arise purely as a result of the effect of the personalised note (the treatment) and not as a result of any other underlying systematic differences between the two groups. We can then examine the success of random assignment[14] by observing the relative similarity of the groups for different characteristics. The results suggest that the balance of characteristics across the two groups is similar with respect to size and sector.

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[13] Garner, Randy, Post-it® Note Persuasion: A Sticky Influence. <u>Journal of Consumer Psychology</u>, 2005.

[14] The issue of underlying differences between groups can largely be overcome by two empirical strategies, namely, randomisation of the groups and the use of large sample sizes.

10.2 Results

The main results, reported in the table below, indicate substantial differences in the response rates of business customers who received personalised notes with surveys (treatment) compared with those who received surveys only (control). After the first 15 days, the response rate was 36.0% in the treatment group compared with 19.2% in the control group. The treatment effect[15] then is an increase in response rates of 88%. In other words, the inclusion of a personalised note causes responses rates to almost double.

The results also show that timing mattered - the effectiveness of the personalised note on response rates was higher in the days immediately following the letters being sent out and declined gradually thereafter. As an example, by the end of the first week, the treatment group had responded at more than twice the rate of the control group (an increase of 103%). Similarly, by the time we had sent out reminders, the effect of personalization had declined dramatically. Statistical analysis was also carried out to test if the differences between the treatment and control groups could be explained by chance. The results are found to be highly statistically significant at the 99% confidence interval. We therefore have strong evidence with which to reject the null hypothesis that the response rates of the groups are the same.

**Table 20: Overall effect of personalised note on survey response rates**

Response Rate	Treatment Group Response Rate (%)	Control Group Response Rate (%)
After 10 working days	30.3%***	16.4%
After 15 work days	36.0%***	19.2%
Over full period	59.7%***	43.5%

Notes: Test for difference applied is the chi-square test for proportions. Significance of P: ***p<.001.

The figure overleaf shows the cumulative trend in responses received by day. Cumulative response rates were consistently higher at every stage of the process when a personalised note was attached. As noted, it is also seen that response rates were higher in the initial days following the letters being sent out and this trend gradually declined over the period.

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[15] The treatment effect is the difference in the average means of the treatment and control groups.

Figure 15: Overall effect of personalised note on survey response rates by day
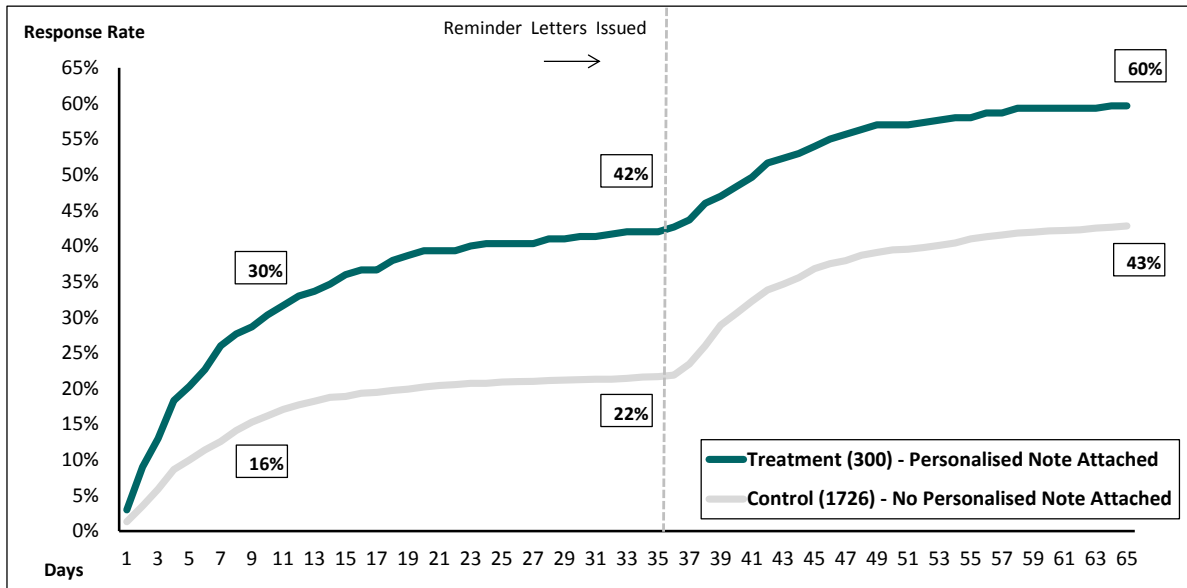
10.3 Additional Experiments

We also undertook two additional experiments as part of our reminder issue. Of those who did not respond to the first letter, we sent out three distinct batches of letters to test both personalisation and social norms with a control letter. The results from these experiments showed no statistically significant differences in the response rates. We speculate, particularly given our previously successful personalisation experiment, that this may be because this non-responding cohort is systematically different in terms of its average propensity to respond.

10.4 Conclusions & Revenue Policy Implications

The main finding from this analysis is that response rates to survey questionnaires can be significantly enhanced if surveys are accompanied with a personalised note. Responses are also received more quickly if surveys are personalised. These results have policy implications for conducting future surveys in Revenue. While personalising every outgoing letter is impractical, it may be useful in achieving higher responses in targeted cases. In addition, these findings may also have more general application – personalisation appears to have very significant behavioural influence on taxpayers. It could also be extended to influence taxpayers in different situations.

11 Econometric Analysis

11.1 Introduction

This section presents the results of our econometric modeling in assessing a number of relationships within the survey data. Readers may wish to skip to the 'summary of modeling results' subsection since the next few subsections are a somewhat technical discussion of the modeling approach adopted.

11.2 Introduction to Modelling Approach

We use a binary model such that the dependent variable captures the probability that a qualitative event occurs given changes in other variables. This may be best illustrated by examples. For instance, what causes an SME to contact Revenue or not? More specifically, if a business is experiencing difficulty paying its taxes for example, how much higher is its probability of contacting Revenue? What are the reasons for SME satisfaction with customer service? If businesses contact Revenue more, to they tend to be more or less satisfied with customer service? And if a business is satisfied with customer service, is it more or less likely to report shadow economy activity and, if so, by how much? By taking a multivariate econometric approach, we can answer these questions with precision and statistical rigor.

In addition to investigating whether there is a *statistically significant* relationship in each case, we are also interested in the *quantitative impact* of any significant relationship. That is, where the relationship between variables emerges as statistically significant, we proceed to estimate how a given change in one variable affects the probable outcome of another.

11.3 Model Selection and Specification

We adopt a general and commonly used modeling framework from the research literature to express the relationships between variables. The model applied is the Linear Probability Model (LPM). In our first model, we aim to assess the determinants of contacting Revenue by estimating the following equation:

(1) $Y(C_i) = \alpha + \beta_1 (S_i) + \beta_2 (Own_i) + \beta_3 (O_i) + \beta_4 (Age_i) + \beta_5 (Emp_i) + \beta_6 (Year_i) + \varepsilon_i$ $(i = 1,...,N)$

Where:

- ❑ C_i denotes whether the respondent contacted Revenue or not;

- ❑ S_i denotes respondents reporting a very high level of satisfaction with customer service;

- ❑ Own_i denotes whether the respondent is the owner of the business or not;

- ❑ O_i denotes whether respondents operate a website or not;

- ❑ Age_i denotes the number of years the business has been in operation and Emp_i denotes the number of employees employed by the respondent;

- ❑ $Year_i$ denotes the year of response either 2012 or 2013;

- ❑ The term ε_i is the stochastic term of the model (capturing other possible influences on the probability of contact not controlled for in the model due to data availability);

- ❑ The terms α and β refer to the parameters of the model to be estimated.

A similar procedure with rearrangement of variables is then adopted for all other models.

11.4 Estimation

In the Linear Probability Model (LPM) adopted, the dependent variable is binary and the respective β values measure the change in the probability of success when a given X_i variable changes, holding other factors constant.

Overall, the model is generally considered to be attractive because of its computational simplicity and ease of interpretation. A main drawback however is that, in certain situations, it is possible to have estimated probabilities outside the $0-1$ range.

Before presenting the results, a number of further methodological aspects are worth noting. First, explanatory variables are either statistically significant or not in the model – for simplicity, we only present statistically significant variables. Second, R-squared values, which measure the amount of variation explained by the model, are almost always very low for LPM models especially when dummy variables are used and we find this to be true of our models. Third, blank responses have been excluded and the sample size is accordingly smaller at 585 responses. We have also carried out re-categorisations of certain variables. Fourth, the dependent variable is binary for all models but the independent variables can take either binary or continuous form. Finally, Ordinary Least Squares (OLS) estimation imposes heteroskedasticity (where the error term is not constant) in the case of a binary response variable so we use robust standard errors to overcome the problem of biased standard errors.

11.5 Summary of Modelling Results

Based on the econometric modeling, a number of insights were obtained including the following:

1. Compared with those not experiencing any difficulties, **those experiencing difficulties paying their taxes <u>on time</u> are 22.1 percentage points more likely to contact Revenue.** This result is in keeping with previous analysis where we showed that among those who did not contacted Revenue 18% were experiencing difficulty paying taxes on time compared with 36% for those who did contact Revenue. We find no evidence of a statistically significant difference of contact for SMEs that are experiencing difficulty paying their taxes <u>in full</u>.

2. Compared with SMEs not contacting Revenue in the past year, **those contacting Revenue were 13.7 percentage points more likely to be very satisfied with customer service.** While there is certainly some reverse causality here, a reasonable interpretation of the result could be as follows. SMEs who contact Revenue may have higher levels of customer satisfaction on average because of the excellent customer service they receive. A corollary is that businesses who have not contacted Revenue tend to have lower average levels of satisfaction.

3. **Highly satisfied customers are more likely report specific instances of shadow economy activity by 8.5 percentage points. This is an important result which underlines the importance of maintaining excellent customer service delivery.** It also reveals an important linkage between customer service delivery and compliance.

4. We also find evidence that **respondents who returned a survey form in 2013 were 10 percentage points more likely to know they could anonymously report instances of shadow economy activity compared to those responding at the end of 2012. This may suggest an increased level of awareness among the SME population over the period** and is also consistent with monthly increases in the proportion of respondents who are aware they can report shadow economy activity.

5. The **probability of contacting Revenue is over 10.5 percentage points higher for SMEs that operate online businesses.** One interpretation is that online businesses may tend to have a greater level of technological awareness and capability and so contact Revenue more often particularly via email.

6. Business owners are almost 12 percentage points more likely to observe increases in activity. A possible explanation is that owners have a greater understanding of their industry and competitors.

7. Older SMEs are more likely to exhibit high levels of satisfaction with customer service while SMEs with more employees are less likely. The quantitative impact of these relationships is found to be very small at ~ 0.3 percentage points.

8. Separately, we also assessed, the determinants of difficulties paying taxes. As we might expect, the main result is that the best predictor of an SME having difficulty paying their taxes in full is if they are having difficulty paying on time, and vice versa. In other words, if one is true the other is highly likely to be true (the estimated *phi coefficient* for measuring associations of binary variables is 0.70).

12 Segmentation Analysis

12.1 Introduction

This section presents the results of our segmentation analysis[16]. Taxpayer segmentation is a means of discerning groupings within data in order to understand complex links between groups of taxpayers and to design strategies for clusters that display commonalities. From Revenue's perspective, segmentation offers a number of outputs as follows. First, it provides a view of the SME population based on statistical classification techniques. This allows for the identification of trends and links between multiple response variables. Second, it provides identifiable segments which can be used to better target customer service treatments for Revenue SME taxpayers, such as marketing & education campaigns. Third, these segments can also be used to better target compliance programs based on the profiles of SME taxpayers, and therefore assist in risk profiling and intervention selection. Segmentation can thus assist Revenue in answering questions like these: who to help, who to thank, who to educate, who to reassure and who to target.

12.2 Summary of Methodology

Cluster analysis is an unsupervised segmentation technique which seeks to identify and classify groupings of cases which have relatively homogenous features within groups but which are relatively heterogeneous between groups. Thus the cases in one group are 'closer' to each other than they are to the cases in other groups. How the closeness is measured depends on the techniques used, but in general the methods use numeric data (or categorical data converted into numeric data) and some form of proximity, distance and density measures. Most survey questions were used as part of the analysis. The results represent an unsupervised natural characterisation of the responses to the SME survey. A number of discriminatory factors were used including accounting practices, company size, difficulty paying taxes, business type and online presence etc.

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[16]This segmentation analysis was completed in collaboration with the Statistics Unit in Research and Analytics Branch.

12.3Results

Before presenting the results, two methodological points are worth noting. First, the analysis produced five different segments which, while sharing similar properties, can be separated from the other segments by a number of features. Second, a case belonging to a particular segment may not display *all* the features of that segment. An overview of the different segments and their main features is shown in the below table.

Table 21: Summary of Segmentation Results

	Segment 1	Segment 2	Segment 3	Segment 4	Segment 5
Segment proportion	*17.7%*	*28.6%*	*7.1%*	*27.4%*	*19.1%*
Key Variables					
No. of employees	4+	0-3	0	0/1	2-9
Satisfied with service	88%	78%	48%	88%	87%
Contacting Revenue	85%	6%	23%	68%	77%
Operating online	51%	25%	15%	5%	97%
Maintenance of Records					
Accountant	12%	78%	61%	69%	71%
Owner	12%	33%	14%	72%	66%
Employee	55%	9%	3%	3%	11%
Difficulty Paying Taxes and Shadow Economy					
Difficulty paying on time	31%	11%	17%	26%	52%
Difficulty paying in full	22%	8%	14%	20%	43%
Seen rise in shadow economy	16%	14%	17%	14%	28%

Segment 1 (165) – larger companies, employee maintains accounts: Firms in this segment were more likely to be larger entities; 51.5% had 4+ employees and 75% of these firms described themselves as Limited Companies. Accordingly, 50% of responses in this category were completed by an individual who was not the business owner and 55% of these firms had their accounts maintained by an employee. A high proportion of respondents in this segment suggested they'd had some contact with Revenue in the prior twelve months and satisfaction with Revenue was generally high. 31% of respondents suggested some difficulty paying taxes in full and 22% had difficulty paying tax on-time.

Segment 2 (266) – few employees, no contact with Revenue, and little difficulty paying taxes: Firms in this segment were smaller (79% had three or fewer employees) and accountants were generally used to file returns. The business owner was the respondent to the survey in 88% of cases. Just 11% of firms in this segment suggested they had difficulty paying taxes on time and 8% had difficulty paying in full. Furthermore, 90% had no contact with Revenue in the prior twelve months and these items may be related.

Segment 3 (66) – sole traders, little contact with Revenue, left survey questions blank: Respondents in this cluster had low response rates for all questions (for example, 40% did not respond to the 'satisfaction with Revenue' question). 77% either had no contact with Revenue in the prior twelve months or else did not respond to the question. 60% of firms in this segment had no employees and accounts were maintained by an accountant or the owner. Firms had low uptake of online trading and had little online presence.

Segment 4 (255) – sole traders, accountant and owner maintain records, no online presence: Approximately 68% of firms in this segment had contact with Revenue in the prior twelve months. 72% of respondents said that the business owner maintained the financial records while 69% claimed that an accountant had some involvement. Over two-thirds of respondents identified themselves as sole traders and there was little uptake of online facilities for their businesses. Respondents were generally satisfied with Revenue with 88% claiming to be "Satisfied" or "Very Satisfied" with the organisation's customer service. Some firms reported difficulties paying taxes in full (20%) and on time (26%).

Segment 5 (178) – Limited Companies, difficulties paying taxes, significant online presence: Firms in this segment tended to be somewhat larger with 64% having at least two employees. 65% of respondents categorised themselves as Limited Companies and 71% used an accountant to maintain the company accounts. Furthermore, 97% of respondents suggested their business operated online and 39% conducted trade via online channels. Segment 5 had a marginally higher proportion of respondents who were "Dissatisfied" or "Very Dissatisfied" with Revenue's customer service (4%) and also displayed the highest proportion of difficulty paying taxes in full (43%) and on time (52%) – these items may be related. Respondents in this segment were more aware of shadow economy activity.

13 Conclusion

This survey provides a robust and representative analysis of the views of SME taxpayers in Ireland between 2006 and 2013. The SME sector makes a key contribution to economic activity and employment in the Irish economy. Revenue plays an important role in supporting SMEs by aiming to make it as easy as possible for taxpayers to be compliant.

The results show that satisfaction with Revenue customer service remains high among SMEs despite the challenging economic environment. The proportions reporting dissatisfaction are at their lowest since the first survey in 2006.

With respect to administrative burden, approximately 3 out of 4 SMEs spend less than two hours per week on maintaining records which represents a marginal increase on previous years. Overall, we might broadly conclude that time spent on Revenue matters has not changed too much for SMEs since 2006.

About half of respondents contacted Revenue over the past year. The results show that SMEs tend to use phone the most followed by ROS and the Revenue website. However, phone also has the highest proportion of dissatisfaction among the channels and text analysis suggests this is due to long wait times on the automated phone system and difficulty getting the correct person to deal with a query. If we compare respondents with and without an online presence, we find that respondents who operate any online-facility are, ceteris paribus, much more likely to contact Revenue. Since 2008, there has been a sharp increase in usage of technology channels such as *ROS* and *email* and a move away from more traditional methods.

Overall, civic responsibility, such as the law and a sense one should do the right thing, is reported as having a greater influence on compliance than Revenue sanctions. This might suggest that the public pay taxes by consent in large part because they want to do the right thing. Of the sanctions, a concern of having to pay interest charges is found to have the greatest degree of influence. Given its high degree of influence, the large reported increase associated with concern of having to pay interest since 2008 is an important result.

70% of respondent indicated that they had no difficulty paying taxes. However, economic conditions continue to be weak in the domestic economy and consequently many SMEs are experiencing financial

difficulties. The results show that 1 in 5 (19%) SMEs experienced difficulty paying taxes both on time and in full, a substantial increase on 2008. A further result is that, compared with 2008, we find that SMEs are now not far off being twice as likely to contact Revenue about their difficulties.

We asked a new set of questions to obtain the views of SMEs on the shadow economy. 1 in 6 respondents (17%) reported that they have personally seen an increase in shadow economy over the past year. Of those who observed an increase, about two-thirds (65%) felt this had an impact on their business. Text analysis suggests that respondents felt they were impacted by shadow economy activity in a number of ways including a loss of business and sales and being undercut on price by businesses not charging VAT. 60% of respondents indicated that they were aware that they could anonymously report an incident of shadow economy activity and 72% said they would anonymously report specific instances of activity to Revenue. Furthermore, the evidence suggests that, on average, more satisfied customers are more likely to report specific instances of shadow economy activity. This finding, which underlines the importance of maintaining quality customer service delivery and suggests a relationship between customer service and compliance, is supported by econometric modeling.

In line with Revenue's objective of improving understanding of compliance behaviour, we undertook a randomised experiment to test the role of personalisation on survey responses. The main finding from the experiment is that response rates to survey questionnaires are significantly higher if a personalised note is attached. Responses are also received more quickly. The results may also have more general application if extended to other areas of Revenue's work – personalisation appears to have a substantial influence on taxpayer behaviour.

In the final question on the survey, we asked respondents if they would like to add a comment on any aspect of the survey or suggest service improvements. Text analysis on this question provides a useful overview of the general conversational themes coming out of the comments section. The largest proportion of responses relates to ways in which Revenue could help businesses including deadline flexibility, providing training and simplifying taxes and returns. The second largest proportion of responses relates to general praise for Revenue as an organization and for Revenue staff, particularly when compared with other areas of the public sector.

14 Appendix

14.1 Appendix I – Full Survey Form (4 Pages)

Revenue Customer Survey 2012

Revenue
Cáin agus Custaim na hÉireann
Irish Tax and Customs

The information you provide in response to this survey will help us to review and improve our service to business customers. Your individual responses will be treated in strictest confidence and will not be made known to your local Revenue Office.

Part 1: Customer Service

The first part of the survey relates to customer service and channels of communication.

1. In your business, who maintains the records required for Revenue purposes? Please tick ☑ as many as are applicable.

   Yourself ☐ Spouse/Partner/Civil Partner ☐ Employee ☐
   Accountant ☐ Agent ☐ Other ☐
   If Other - please specify: _____

2. If you, your spouse/partner/civil partner or your employee maintain the records, please estimate how many hours **per week** it takes to deal with Revenue related matters? Please tick ☑ the appropriate box.

   1 Hour or less ☐ 1 to 2 hours ☐ 2 to 3 hours ☐
   3 to 4 hours ☐ More than 4 hours ☐

3. When dealing with Revenue related matters, which aspect do you find most burdensome and why?

   [   ]

4. Did you contact Revenue in the last 12 months? Yes ☐ No ☐
   If 'No', please go directly to Question 9.

5. If you contacted Revenue in the last 12 months, how many times did you use the following methods of contact? Please tick ☑ as many as are applicable.

Method of Contact	Never	Once	2 to 3	4 to 6	More than 6
Telephone	☐	☐	☐	☐	☐
Revenue On-Line Service (ROS)	☐	☐	☐	☐	☐
Letter/Fax	☐	☐	☐	☐	☐
Email	☐	☐	☐	☐	☐
Calling in person to a Revenue Public Office	☐	☐	☐	☐	☐
www.revenue.ie	☐	☐	☐	☐	☐

6. If you contacted Revenue in the last 12 months, how would you rate your satisfaction with the service you received? Please tick ☑ as many as are applicable.

Method of Contact	Very Satisfied	Satisfied	No Opinion	Dissatisfied	Very Dissatisfied
Telephone	☐	☐	☐	☐	☐
Revenue On-Line Service (ROS)	☐	☐	☐	☐	☐
Letter/Fax	☐	☐	☐	☐	☐
Email	☐	☐	☐	☐	☐
Calling in person to a Revenue Public Office	☐	☐	☐	☐	☐
www.revenue.ie	☐	☐	☐	☐	☐

   If you indicated dissatisfaction with the service you received when you contacted Revenue, please tell us the reason(s) for your dissatisfaction.

   [   ]

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7. Apart from queries related to tax payments, over the last 12 months, did you have any
    issue to resolve that required more than one contact with Revenue?   Yes ☐   No ☐

8. If 'Yes', consider the one query that required the highest number of contacts and please indicate below the number of
    contacts made. Please tick ☑ appropriate box.

	One	2 to 3	4 to 6	More than 6
Number of contacts	☐	☐	☐	☐

What did the query relate to? How was it resolved?

9. Regardless of whether you contacted Revenue in the last 12 months, on a scale of 1 to 6, **where 1 is most preferred and 6
    is least preferred**, please rank your preference on the following methods of contact.

Method of Contact	Rank 1 to 6
Calling in person to a Revenue Public Office	
Email	
Letter/Fax	
Telephone	
Revenue On-Line Service (ROS)	
www.revenue.ie	

10. In general, how would you rate your **overall** satisfaction with the customer service you receive from Revenue?

    Very Satisfied ☐   Satisfied ☐   No Opinion ☐   Dissatisfied ☐   Very Dissatisfied ☐

11. If you would like to add a comment on any aspect of this section, please do so here.

Part 2: Filing your Annual Income Tax Return (Form 11)

*This part of the survey relates to the principal individual running this business and to the filing of his/her Income Tax Return Form 11.
Individuals including sole traders, partners of a partnership and proprietary directors of a company file this form.*

12. We would like to know how you are reminded to file your Annual Income Tax Return. Please tick ☑ as many as are applicable.

Direct contact from Revenue	☐	Radio advertisements	☐	Newspaper articles	☐
Accountant	☐	Television advertisements	☐	www.revenue.ie	☐
Agent	☐	Website advertisements	☐	Business calendar	☐
Employee	☐	Twitter messages	☐	Other, please specify _____	

Part 3: Factors That Influence Compliance

This part of the survey relates to factors that influence compliance. The information you provide will help to inform Revenue's understanding of the issues that influence taxpayer behaviour in relation to compliance.

13. On a scale of 1 to 5, <u>where 1 is low influence and 5 is high influence</u>, how would you rate the influence of each of the following factors on whether you pay your correct taxes and duties honestly and on time? Please circle your rating in each case.

	Low				High
Concern at having to pay interest charges for late payment of tax	1	2	3	4	5
Because it is the law	1	2	3	4	5
Concern at having goods seized by the Revenue Sheriff for failure to pay tax	1	2	3	4	5
Belief that other taxpayers are declaring and paying honestly	1	2	3	4	5
Concern that a third party (e.g. a bank), owing money to you, will be ordered to pay that money over to Revenue	1	2	3	4	5
The fact that Revenue presumes that you have been honest in your dealings with them	1	2	3	4	5
Concern that Revenue will obtain a court judgment against you for failure to pay tax and publish details of that judgment	1	2	3	4	5
Your personal belief that you should do the 'right thing'	1	2	3	4	5
Concern that you will be audited by Revenue	1	2	3	4	5
Concern that your name will be published on Revenue's Quarterly List of Defaulters	1	2	3	4	5
Knowing that Revenue has the power to receive certain information about you from 3rd parties (e.g. payments, rental income, interest, dividends)	1	2	3	4	5
Because Revenue makes it easy to pay taxes	1	2	3	4	5
Because tax payments are used to fund public services	1	2	3	4	5

14. Over the last 12 months did you encounter the following?   Yes   No

Difficulty in paying your taxes on time? ☐ ☐

Difficulty in paying your taxes in full? ☐ ☐

If you answered 'No' to both questions above, please go directly to **Part 4**.

15. If you answered 'Yes' in Question 14, did the difficulty/difficulties arise because of: Yes   No

Temporary cash-flow problems ☐ ☐

Ongoing financial problems ☐ ☐

Lack of awareness/understanding of payment obligations ☐ ☐

Other, please specify _____

16. If you answered 'Yes' in Question 14, did you contact Revenue to seek advice about your difficulties?   Yes ☐   No ☐

If 'Yes', please complete Question 17 only. If 'No', please go directly to Question 18.

17. If you contacted Revenue to seek advice about your difficulties, please rate Revenue's response below. Please tick ☑ the appropriate boxes.

	Strongly Agree	Agree	No Opinion	Disagree	Strongly Disagree
Approachable	☐	☐	☐	☐	☐
Helpful	☐	☐	☐	☐	☐
Timely	☐	☐	☐	☐	☐
Fair	☐	☐	☐	☐	☐

Other, please specify _____

18. Please tell us why you did not contact Revenue to seek advice about your difficulties.   Yes   No

I was expecting Revenue to contact me ☐ ☐

I did not think it would make any difference to the outcome ☐ ☐

Other, please specify _____

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Part 4: Shadow Economy Activity

Shadow economy activity includes understating or non-reporting of any taxable income, such as sales or payments received for services, paying employees off the record or illicit trading in smuggled/counterfeit products.

	Yes	No
19. Have you personally seen evidence of an increase in shadow economy activity in your business sector in the last 12 months?	☐	☐
20. If 'Yes', has this had an impact on your business?	☐	☐

If 'Yes', what has been the impact?

	Yes	No
21. Did you know you can anonymously report an incident of shadow economy activity to Revenue?	☐	☐
22. Would you anonymously report specific instances of shadow economy activity to Revenue?	☐	☐

If 'No', why not?

Part 5: Business Demographics

This part of the survey relates to business demographics.

	Yes	No
23. Please indicate if you are the owner of the business:	☐	☐

If 'No', please state your position/role in the business: _____

24. Is your business one of the following? Please tick ☑ as appropriate.

Limited Company	☐	Sole Trader	☐
Partnership	☐	Other, please specify _____	

25. What business sector do you operate in? _____

26. Does your business operate any of the following on-line facilities? Please tick ☑ as many as are applicable.

Website	☐	Twitter account	☐
If you have a website is it used for trading?	☐	Linkedin account	☐
Facebook account	☐	Other, on-line facility, please specify _____	

27. How many years has the business been in operation?	28. How many employees in total does the business employ?	29. Of these employees, how many are part-time?

Part 6: Concluding Comments

30. If you would like to add a comment on any aspect of this survey, or suggest service improvements or additional services you would like to see provided by Revenue, please do so here:

Thank you for taking the time to complete this survey.

Please return your completed survey using the enclosed Freepost envelope.

Revenue
Cáin agus Custaim na hÉireann
Irish Tax and Customs

14.2 Appendix II – Covering Letter

Invitation to Participate in Business Customer Survey

Dear Customer,

Revenue's Research and Analytics Branch is conducting a survey based on a random sample of small and medium sized business customers. We would like to invite you to participate by completing the enclosed questionnaire.

The purpose of the survey is to measure satisfaction regarding the manner in which Revenue delivers service to its business customers, to inform our understanding of the factors that influence compliance and to determine if shadow economy activity is impacting on your business sector.

The survey should take no more than ten to fifteen minutes to complete and should ideally be completed by the owner of the business. Your answers will be treated in the strictest confidence and the information you provide will be used to review and improve Revenue's service to business customers. This information will not be made known to your local Revenue Office.

Please complete the front and back of the **two** questionnaire sheets and return the completed questionnaire using the enclosed Freepost envelope.

We appreciate your views and look forward to your response by the 3rd of December 2012.

Many thanks for your assistance.

Yours sincerely,

_____
Liam Gallagher
Principal Officer