



Department for  
Business & Trade

# **DIT export client reported impact survey: Technical report**

# Contents

<b>Contents</b>	<b>2</b>
<b>1. Introduction</b>	<b>3</b>
1.1 Overview	3
1.2 Overview of the survey methodology	3
<b>2. Questionnaire</b>	<b>5</b>
2.1 Logic Model	5
2.2 Questionnaire Design	5
2.3 Cognitive Testing	5
2.4 Pilot	6
2.5 Questionnaire quality	6
<b>3. Sampling</b>	<b>8</b>
3.1 ECS Sampling	8
3.2 Sample sources	8
3.3 Building the sample frame	9
<b>4. Data collection</b>	<b>10</b>
4.1 Fieldwork outcomes	10
4.2 Response rates	10
<b>5. Weights</b>	<b>15</b>
5.1 Overview of weights	15
5.2 Levels of weights	15
5.3 QS Design weights	16
5.4 RIS non-response weight	16
5.5 Design effects - RIS	17
<b>6. Data and analysis</b>	<b>18</b>
6.1 Confidence intervals	18
6.2 Significance testing between sub-groups	19
6.3 Data quality and processing	19
6.4 Reported impact considerations	20
6.5 Derived variables	20
6.6 Reporting	22

# 1. Introduction

## 1.1 Overview

This technical report summarises the key technical aspects of the DIT Export Client Reported Impact Survey for businesses supported April 2018 to March 2020.

The main aims of the Export Client Survey (ECS) are:

- To track client perceptions of quality of support and advice provided by DIT;
- To provide a measure of reported impact on business of DIT's services;
- Understand what drives performance and how services can be improved over time.

The ECS comprises two linked surveys: a Quality Survey (QS) and a Reported Impact Survey (RIS). Interviewing for the QS generally begins three months after the specific interaction with DIT.

The RIS interviews QS respondents who agreed to recontact for research purposes 12 months after the specified interaction with DIT.

This technical report encompasses three reporting years and three individual Reported Impact Survey Reports. Each reporting year period constitutes services delivered in April to the following March. This technical report therefore includes the following reporting years:

- April 2018 to March 2019
- April 2019 to March 2020
- April 2020 to March 2021

Throughout the main report, findings from businesses that used DIT services are compared to findings from the previous reporting year period.

The Export Client Survey was originally designed by Kantar and delivered by Kantar over the 2018-19 and 2019-20 reporting years. Following this period, Ipsos were awarded the contract to deliver the 2020-21 and 2021-22 reporting years.

## 1.2 Overview of the survey methodology

### 1.2.1 Sampling

The Quality Survey interviews businesses which have used a DIT exporting service each month. Interviewing takes place approximately three months after the service interaction with DIT. Analysis of the survey data focuses on businesses' specific interaction with DIT, focusing on customer experience and the quality of the service received.

The Reported Impact Survey sample is drawn from businesses that participated in the Quality Survey and agreed to be recontacted by the survey contractor for the purpose of research. The RIS takes place approximately nine months after the business completed the Quality Survey, and approximately twelve months after the service interaction with DIT.

### 1.2.2 Fieldwork dates

As the Reported Impact Survey interviews businesses that have received an eligible export promotion service delivery 12 months from service delivery, fieldwork for this report began in

April 2019 (interviewing businesses that received support from DIT in April 2018) and ended in March 2022 (interviewing businesses that received support in March 2021).

### **1.2.3 Fieldwork**

All respondents were sent an email, prior to being contacted, to let them know the purpose of the research and provide them with an opportunity to contact the survey contractor to ask any questions or opt out of the research. Interviews were conducted using a Computer Assisted Telephone Interviewing (CATI) method. As such, the questionnaire was programmed in specialist interviewing software, ensuring that any question filtering was applied accurately during the interview.

The response rates for the Reported Impact Survey fieldwork years ranged from 50% to 67%. The response rate was calculated using the American Association for Public Opinion Research standard definitions, an industry standard metric for calculating response rates. Further details on response rates are provided in the Data Collection section of this report. The average (mean) interview length has ranged between 15 to 22 minutes each year.

## 2. Questionnaire

### 2.1 Logic Model

Kantar and Frontier Economics were commissioned to develop a logic model to underpin the redesign of the survey. The aim of the logic model was to ensure questions were designed to understand the economic and wider impacts of public support to promote exports.

The logic model was developed using an iterative process. Firstly, Kantar and Frontier Economics met 11 stakeholders to understand the needs of the survey and which services were to be included. A key parameter of the research was that the logic model needed to be future proofed (to take into account additional services), which underpinned the development of the model. A large number of internal documents from DIT were then reviewed, along with other publicly available documents to understand the research that had been done in the area previously. In total, 60 Documents were reviewed in total.

The final logic model maps groups of activities (inputs), to activities, outputs, short term outcomes and long-term outcomes and then their impacts. Please see the logic model and service mapping documents in Annex A for further detail.

### 2.2 Questionnaire Design

The ECS questionnaire was initially developed through a mixture of key stakeholder interviews and a review of the logic model to understand what survey measures were necessary to capture the intended outputs, outcomes and impacts of each product or service. This was then followed by cognitive testing, then a live field 'pilot' of the questionnaire. Each of these stages are discussed below.

### 2.3 Cognitive Testing

Following a series of questionnaire drafts, with outcomes mapped against the logic model, the questionnaire was cognitively tested with a wide range of businesses (export status, number of employees, turnover, service type). Kantar conducted fourteen interviews in August 2018. Five interviews were conducted face-to-face and nine interviews were conducted by telephone. Face to face interviews typically lasted an hour and telephone interviews between 30 and 60 minutes (depending on questionnaire routing).

The primary purpose of cognitive testing is to examine how well the impact survey questions perform when asked of survey respondents, that is, if respondents understand the questions correctly and can provide accurate and consistent answers. The interviews were in depth and semi structured to ensure consistency and to allow for issues to emerge naturally from the conversation.

The objectives of cognitively testing the questionnaire were to:

- Explore understanding of question wording and phraseology for both the question as a whole and any key words and phrases it might contain
- Understand what decision processes the respondent uses in coming to an answer
- Explore how easily respondents answered hypothetical questions about the impact using DIT services had their business
- Test overall feelings about the questionnaire:
  - Order of questions

- Respondents feelings of complex areas - areas that were difficult to answer
- Areas that were causing discomfort or respondent fatigue
- Make recommendations on how the questions can be improved or refined

Respondents found that the majority of the questions made sense, were answerable and the order and flow seemed logical. However, the interview length was longer than expected and respondents felt it was repetitive. Respondents found it difficult to answer some questions about what they would do in hypothetical scenarios (e.g. where they would go for support if they had not been able to use a specific service). Kantar recommended removing questions that were repetitive or were already asked in the quality survey. This reduced the interview length and the general burden on respondents.

## 2.4 Pilot

Kantar conducted a live 'pilot' trial of the survey between 28<sup>th</sup> and 31<sup>st</sup> September 2018. Interviews were completed with 40 businesses.

The objectives of piloting the questionnaire were to:

- Conduct further testing of question wording following cognitive testing and review how the interview as a whole flows for the respondent
- Test the survey when administered by a telephone interviewer, in the exact same format as the main survey:
  - Particularly test interview length and;
  - How easy the survey was for interviewers to navigate and;
  - Interest in taking part in the survey based on calls and respondent recognition of the service they used during the interview
  - Test how well questions asking about the number and value of new overseas sales contracts won could be answered on a telephone survey.
- Make recommendations on how the questions can be improved or refined further

Kantar reviewed responses to the survey (to check for high levels of non-informative answers such as "prefer not to say" or "don't know"), listened to 10 interviews and collated interviewer feedback. The key finding was that the majority of the survey went well but the interview length was a little too long. Following the pilot, the survey introduction was revised to further remind respondents of their participation in the Quality Survey and their interaction with DIT interaction. Several questions were removed to reduce the overall interview length.

## 2.5 Questionnaire quality

The RIS asks businesses about the impact a DIT service has had on their business over a 12-month period. This is a relatively long period to recall information about the number of contracts and the value of contracts won, alongside the general impact the DIT service has had on their business. To account for this potential recall bias, at the start of the section about the DIT impact on new overseas sales, exporters are asked whether they can confidently provide an answer on the impact of the service or of DIT as a whole (and the question text reflects either of these) and if not, they skip this section of questions.

To maximise the accuracy of numeric questions, such as the value of contracts or numbers of contracts, interviewers ask businesses in an open format. Interviewers can only input numeric responses and letters are rejected, which ensures that response formats are consistent. The interviewers also read back all numeric responses to check that the respondent is satisfied that their answer is correct.

A banded follow up question is asked of businesses if they respond that they don't know to an open numeric question. This maximises the opportunity they have to give an informative response.

During the analysis and reporting stage, the open and banded follow up variables are combined into a single banded variable. The median value for open numeric questions are used (rather than the mean) to reduce the effect of outliers on the estimates.

## 3. Sampling

### 3.1 ECS Sampling

It is common for a business to receive more than one of DIT's exporting services over 12 months. However, the ECS was designed to survey any single business no more than twice in a 12-month period: once for the QS and once for the RIS. The reason for this restriction was to limit the data collection burden on businesses.

To administer the ECS, it was therefore necessary to combine the records from the source files into a single sample frame. As there was no common company-level identifier in the source files, it was also necessary to create such an identifier to make it possible to recognise where different records in the source files referred to the same business.

Records without a valid telephone number recorded were tele-matched, and key company information was cleaned. Further detail of how sample was prepared is included in the QS 2020/21 Technical report.

### 3.2 Sample sources

Businesses were eligible for the RIS if they completed the QS and agreed to be re-contacted for further research. The proportion of businesses that took part in the ECS and agreed to re-contact ranged from 74% to 82% over the reporting periods. This is detailed in tables 3.1 – 3.3.

**Table 3.1. Re-contact agreement rate by service over 2018-19 reporting period**

Service	Number of businesses completing QS	Number of businesses agreeing to re-contact	Re-contact permission rate
Webinars	333	239	72%
ITAs	2,001	1,572	79%
OBNI	154	118	77%
OMIS	141	107	76%
Posts	748	555	74%
TAP	369	278	75%
Missions	167	135	81%
Export opportunities	893	718	80%
SOO	35	23	66%
Find a buyer	158	119	75%
Sector Teams/DSO	522	389	75%
<b>Total</b>	<b>5,521</b>	<b>4,253</b>	<b>77%</b>

**Table 3.2. Re-contact agreement rate by service over 2019-20 reporting period**

Service	Number of businesses completing QS	Number of businesses agreeing to re-contact	Re-contact permission rate
Webinars	423	308	73%
ITAs	2402	1802	75%
OBNI	198	143	72%
OMIS	89	68	76%



Posts	765	577	75%
TAP	179	136	76%
Missions	789	138	73%
Export opportunities	297	196	66%
SOO	28	17	61%
Business Profiles	99	86	67%
Sector Teams	308	216	70%
<b>Total</b>	<b>4977</b>	<b>3667</b>	<b>74%</b>

**Table 3.3. Re-contact agreement rate by service over 2020-21 reporting period**

<b>Service</b>	<b>Number of businesses completing QS</b>	<b>Number of businesses agreeing to re-contact</b>	<b>Re-contact permission rate</b>
Webinars	2,378	1,930	81%
ITAs	1,526	1,279	84%
OBNI	127	107	84%
OMIS	42	31	74%
Posts	622	511	82%
Missions	143	117	82%
Export opportunities	304	254	84%
SOO	33	27	82%
Business Profiles (Find a Buyer)	68	55	81%
Export & Investment Teams (Sector Teams)	113	94	83%
<b>Total</b>	<b>5,356</b>	<b>4,405</b>	<b>82%</b>

### **3.3 Building the sample frame**

Any business which completed the QS and agreed to further re-contact was included in the RIS sample. If a business had received more than one service, they were asked about the same service as they were asked about in the QS.

#### **3.3.1 Sampling**

The QS interviews businesses that have used a DIT exporting service each month. Interviewing takes place approximately three months after the service interaction with DIT. Analysis of the survey data focuses on businesses' specific interaction with DIT, focusing on customer experience and the quality of the service received.

The RIS sample is drawn from businesses that participated in the QS and agreed to be recontacted by the survey contractor for the purpose of research. The RIS takes place approximately nine months after the business completed the QS, and approximately twelve months after the service interaction with DIT.

Further details about the processes used to draw the initial sample can be found in the QS Technical Report.

## 4. Data collection

### 4.1 Fieldwork outcomes

All businesses that completed the QS and agreed to re-contact for research purposes were included in the RIS sample.

Fieldwork for the RIS takes place approximately nine months after the business completed the QS and approximately twelve months after their interaction with DIT.

Businesses in the sample were sent advance emails. The advance emails offered more information about the businesses' interaction with DIT and the survey itself – such as date of interaction, which DIT service used, the purpose of the research and provided businesses with an opportunity to contact the survey contractor to ask any questions or opt out of the research. The advance emails also included a reminder of when that business completed a QS interview to aid recall of the research.

The survey was administered by the survey contractor's team of specialist interviewers. Interviewers received a detailed briefing from the research team prior to fieldwork, with a view to ensuring that they understood the policy background to the study and were fully appraised of how to deal with any queries which respondents were likely to raise during the course of the interview, and aware of the importance of verifying all 'numeric' responses to questions by reading them back to respondents.

The interviewers conducted the interviews using Computer-Assisted Telephone Interviewing (CATI).

The same fieldwork methods used in the QS are used to conduct the RIS fieldwork, as well as the same tailored briefing given by the research team to the team of specialist interviewers.

### 4.2 Response rates

#### 4.2.1 Response rates by each reporting period

Table 4.1 below shows response rates achieved for each reporting year. Overall response rates have been calculated using the American Association for Public Opinion Research standard definitions, an industry standard metric for calculating response rates where in the calculation of response rate, the eligibility rate of sample for which eligibility is unknown is assumed to be the same as for the known sample.

**Table 4.1 Overall fieldwork outcomes by reporting period**

<b>Fieldwork outcomes</b>	<b>April 2018 to March 2019</b>	<b>April 2019 to March 2020</b>	<b>April 2020 to March 2021</b>
<b><i>Number of cases issued</i></b>	4175	3636	4,405
Live sample not interviewed	791	1071	317
Deadwood (uncontactable phone numbers)	301	249	1,131

Refusal	808	636	773
Ineligible	0	0	0
<b>Complete interview</b>	2275	1680	2,184
<b>Response rate</b>	59%	50%	67%

---

### 4.2.2 Response rates for each DIT service

Tables 4.2 to 4.5 break down the response rates by each product or service over each reporting period.

**Table 4.2 Fieldwork outcomes April 2018 to March 2019 reporting period**

<b>Service</b>	<b>Export Opportunities</b>	<b>Find a Buyer</b>	<b>Selling Online Overseas</b>	<b>Webinars</b>	<b>TAP</b>	<b>ITAs</b>	<b>Missions</b>	<b>OBNI</b>	<b>OMIS</b>	<b>Posts</b>	<b>Sector teams</b>
<b>Number of cases issued</b>	681	123	22	221	289	1554	129	118	102	549	370
Live sample not interviewed	133	22	5	47	42	271	34	20	24	126	64
Deadwood	47	12	3	22	11	96	9	10	10	49	32
Refusal	153	27	5	33	36	285	24	29	18	111	80
Complete	348	62	9	119	200	902	62	59	50	263	194
<b>Response rate</b>	<b>55%</b>	<b>56%</b>	<b>47%</b>	<b>60%</b>	<b>72%</b>	<b>62%</b>	<b>52%</b>	<b>55%</b>	<b>54%</b>	<b>53%</b>	<b>57%</b>

**Table 4.3 Fieldwork outcomes April 2019 to March 2020 reporting period**

<b>Service</b>	<b>TAP</b>	<b>ITAs</b>	<b>Missions</b>	<b>OBNI</b>	<b>OMIS</b>	<b>Posts</b>	<b>Sector teams</b>	<b>Webinars</b>	<b>Export Opportunities</b>	<b>Business Profiles</b>	<b>Selling Online Overseas</b>
<b>Number of cases issued</b>	135	1788	138	141	66	574	213	304	195	65	17
Live sample not interviewed	48	521	41	46	13	172	63	85	58	19	5
Deadwood	6	102	13	8	5	53	22	24	13	2	1
Refusal	22	311	15	23	23	85	35	62	39	19	2
Complete	59	854	69	64	25	264	93	133	85	25	9
<b>Response rate</b>	<b>46%</b>	<b>51%</b>	<b>55%</b>	<b>48%</b>	<b>41%</b>	<b>51%</b>	<b>49%</b>	<b>48%</b>	<b>47%</b>	<b>40%</b>	<b>56%</b>

**Table 4.3 Fieldwork outcomes April 2019 to March 2020 reporting period**

<b>Service</b>	<b>ITAs</b>	<b>Missions</b>	<b>OBNI</b>	<b>OMIS</b>	<b>Posts</b>	<b>Sector Teams</b>	<b>Webinars</b>	<b>Export Opportunities</b>	<b>Business Profiles</b>	<b>Selling Online Overseas</b>
<b>Number of cases issued</b>	1279	117	107	31	511	94	1930	254	55	27
Live sample not interviewed	83	4	7	1	35	8	152	22	3	2
Deadwood	334	33	27	9	155	33	449	70	14	7
Refusal	201	24	18	7	87	20	356	40	14	6
Complete	661	56	55	14	234	33	973	122	24	12
<b>Response rate</b>	<b>70%</b>	<b>67%</b>	<b>69%</b>	<b>64%</b>	<b>66%</b>	<b>54%</b>	<b>66%</b>	<b>66%</b>	<b>59%</b>	<b>60%</b>

## 5. Weights

### 5.1 Overview of weights

Survey weights are necessary to make the sample representative of the businesses receiving DIT services during this period (April 2020-March 2021). Two weights were derived, reflecting the different ways in which the data can be analysed:

- A **company-level weight** was derived for information about businesses which does not depend on the particular service asked about in the questionnaire (for example, company size, prior exporting behaviour and so on).
- A **service-level weight** was derived for information which does depend on the particular service (for example, number of new overseas sales contracts won with DIT's help).

There are two components to each of the weights:

- **Accounting for different probabilities of selection.** Some types of business were more likely to be *selected* for the survey than others. The weights correct for the fact that these types of business are therefore relatively over-represented in the final dataset.
- **Accounting for different probabilities of response.** Of those selected for the survey, some types of business were more likely to *take part* than others. Again, the weights correct for the fact that these types of business are relatively over-represented in the final dataset.

The final weights are the product of these two components: a design weight accounting for the different probabilities of selection, and a non-response weight accounting for the different probabilities of completing the survey.

### 5.2 Levels of weights

The reason for producing two levels of weights – a company-level weight and a service-level weight – is that many businesses received more than one service from DIT over the time covered by the survey. As a result, there was more than one service for which that business could have been sampled. In short, the company-level weight is intended to account for differences in the probability of a business taking part in the ECS for *any* service. The service-level weight is intended to account for differences in the probability of a business taking part in the ECS for a *particular* service.

Much of the ECS questionnaire is focused on a business' experience, and impact, of a particular DIT service. For these questions, the responses clearly depend on which service the business was asked about. The service-level weight should be used for these questions to provide estimates which are representative of the businesses receiving each service.

However, there are some questions where it is reasonable to assume that the responses do not depend on which service the business was sampled for. Examples include the number of employees a business has, turnover, and prior exporting activities. Effectively, the company-level weight assumes that the answer to these questions would have been the same had the business been sampled for a different service. The advantage of using the company-level weight for these questions is that the survey estimates will tend to be more precise than when using the service-level weight. This is because the service-level weight will include some cases where the probability of being selected for that particular service is very low. These will produce more extreme values for the service-level weight, reducing the effective sample size for analysis.

### 5.3 QS Design weights

The design weights are derived as 1 divided by the probability of selection:

$$DW_{company} = \frac{1}{\sum_{service} P(S_{service})}; \quad DW_{service} = \frac{1}{P(S_{service})}$$

Where  $DW_{company}$  and  $DW_{service}$  are the company- and service-level design weights respectively,  $\sum_{service} P(S_{service})$  is the probability of a business being selected for *any* service, and  $P(S_{service})$  is the probability of being selected for a *particular* service.

Businesses with high probabilities of selection are given less weight (as they will be relatively over-represented in the dataset), while businesses with low probabilities of selection are given more weight (as they will be relatively under-represented).

However, the selection probabilities are not known exactly because of the complexity of the sample structure. Primarily, this complexity is due to the exclusion criteria applied: once a business was selected for the ECS, it was excluded from selection for the next 11 months (so that it would only be selected once in a twelve-month period). In effect, this means that the probability of a business being selected in a given month depended on the selections made in all previous months.

Other factors of the sample structure affecting the probability of selection were:

- The number of businesses selected that month;
- The number of interactions/service deliveries recorded for each service;
- Which service(s) a given business had received that month.

As the selection probabilities were not known exactly, these were estimated by simulation. In practice, this simply involved repeating the selection process from the first month through to the most recent month many (2,500) times. The selection probabilities were then estimated as the proportion of these simulations in which the business was selected for *any* service (for the company-level weight), or for a *specific* service (for the service-level weight).

### 5.4 RIS non-response weight

For the RIS, there was a stage of non-response between the QS and the RIS: businesses which either did not give permission to be re-contacted for the RIS, and businesses which gave permission, but did not complete the RIS.

For each QS respondent, the probability of completing the RIS (conditional on having completed the QS) was estimated with a logistic LASSO (Least Absolute Shrinkage and Selection Operator) regression. A LASSO regression uses a number of variables to predict an outcome, in this case, whether or not a QS respondent went on to complete the RIS. The model estimates the probability of responding to the RIS for each case. The LASSO shrinks the model estimates associated with each variable towards zero to improve the model predictions.<sup>1</sup> For a non-response model, this shrinkage has the additional benefit of reducing the likelihood of extreme weights, and so can lead to more precise weighted survey estimates.

The RIS company-level weight is simply the QS company-level weight, multiplied by this modelled estimate for the probability of responding to the RIS. Similarly, the RIS service-level weight is the QS company-level weight multiplied by the modelled estimate for the probability of responding to the RIS.

---

<sup>1</sup> Specifically, the shrinkage helps to ensure the model is accurately capturing the likelihood of responding to the RIS by reducing the risk of over-fitting (that is, that the model generalises well).



A final adjustment was made to the RIS weights by repeating the iterative proportional fitting from the QS non-response weight (see QS technical report). This was done to make sure the profile of the sample matched the population for these target distributions. However, this final adjustment made little difference to the weights.

## **5.5 Design effects - RIS**

Weighting reduces the effective sample size of a dataset; because of the differences in the probabilities of selection and the probabilities of response, the achieved sample provides less information than a notional simple random sample<sup>2</sup> of the same size.

---

<sup>2</sup> That is, a sample where all cases had exactly the same probabilities of selection and of response (having been selected).

## 6. Data and analysis

### 6.1 Confidence intervals

Charts and tables in the report display the confidence interval for each survey question estimate. When a survey is carried out, the respondents who take part are only a subset of those in the population and as such may not give an exact representation of the 'true' average in the population. When we get an estimate for a survey, we use 'Confidence Intervals' to account for the fact that we have interviewed a subset of the population. A 95% Confidence Interval is a margin of error around an estimate, which gives a range of values within which we can be 95% confident that the true mean will lie.

For instance, if 1000 people were interviewed, and 500 (50%) of them said that they agreed with a statement, then you can be 95% confident that true proportion of people who agree with the statement is between 50% +/- 3% (47%, 53%).

When a smaller number of people are interviewed, it means that there is a larger margin of error around the estimate. The size of the margin of error also varies depending on the estimate itself. As an example, the table below provides several different confidence intervals for different estimates with different sample sizes.

**Table 6.1 95% Confidence intervals around various estimates with different sample sizes**

Number of interviews	100	500	1000
Estimates (%)			
10% or 90%	+/-6%	+/- 3%	+/- 2%
30% or 70%	+/- 9%	+/- 4%	+/- 3%
50%	+/- 10%	+/- 4%	+/- 3%

To obtain an accurate measure of a confidence interval we need to take into account more than just the unweighted sample size and survey estimate. A common approach within market research is to calculate confidence intervals by solely taking the unweighted sample size and survey estimate into consideration and not adjust for the 'standard error' around any estimate. The ECS is weighted, correcting for variation in sampling probability and variation in response probability. These standard errors need to be accounted for if we are to obtain accurate measures of confidence intervals.

One of the effects of using a complex design and weighting is that standard errors for survey estimates are generally higher than the standard errors that would be derived from an unweighted simple random sample of the same size. Therefore, the true standard errors of the complex design are calculated by multiplying the standard error (of an estimate from a simple random sample) by the design factor (deft).

The ratio of the standard error of the complex sample to that of a simple random sample of the same size is known as the design factor.

The 95% confidence interval of a complex survey design is equal to:

$p \pm (1.96 \times \text{true standard error})$

where:

true standard error = design factor x standard error of a simple random sample; and

$p$  = the point estimate, which is the percentage or proportion estimated from our sample (or sample mean)

In this survey we use the Complex Samples Module within SPSS to correct for these effects. This provides a more precise estimate of the confidence intervals.

## 6.2 Significance testing between sub-groups

Where the results for one group of respondents are compared with the results for another group, any differences discussed in the text of this report were statistically significant at the 95% probability level, unless otherwise stated. This means that we can be 95% confident that the differences observed between the subgroups are genuine differences, and have not just occurred by chance. Similarly, any changes between years discussed in the text are statically significant at the 95% probability level.

## 6.3 Data quality and processing

Interviews were conducted using a Computer Assisted Telephone Interviewing (CATI) method. As such, the questionnaire was programmed in specialist interviewing software, ensuring that any question filtering was applied accurately during the interview. A number of logic and consistency checks were built into the CATI script. These were of two types: hard checks and soft checks. Hard checks are those where the interviewer is unable to move to the next question until the discrepancy or inconsistency has been resolved. Soft checks are ones where the interviewer is asked to confirm that the information entered at a specific question is correct but is able to pass on to the next question.

- An example of a hard check is where a value given for number of new overseas exporting contracts won with the help of DIT is higher than the total number of new overseas exporting contracts won in total.
- An example of a soft check is to check the value of contracts appears high. In this case the interviewer will be prompted to check with the respondent whether the value entered is correct or not, and has the option either to change the original answer or leave it as it is.

The survey contractor produced datasets using MS Excel and SPSS. The dataset was checked and cleaned by researchers within the survey contractor team. This included:

- Routing checks on questionnaire variables
- Checks on all sample variables included in the data and weighting scheme
- Cleaning of variable names, variable labels and value labels
- Comparison checks with previous datasets
- Sense checks on key variables.

Derived variables were also created for analytical purposes.

With the exception of the coding of responses to open-ended questions, or option to provide an 'other' response within a pre-coded list question, no data entry phase was required for this CATI survey. The programmed script ensured that all question routing was performed automatically and

no post-editing of the data was required in the way that might be necessary for surveys administered using a 'Pencil and Paper' method.

Responses from fully open-ended questions and 'other' responses were collated and code frames created to reflect all key themes in the responses. Responses from questions with an 'other – specify' option were analysed and, if appropriate, back-coded into one of the pre-coded categories. If the response could not be assigned to an existing code but gained a sufficient number of mentions, a new code was created which all relevant responses were assigned to. Coding was carried out by a specialist team. All coders who worked on the study were briefed and a written set of instructions was made available. Code frames were created by the coding team in the first instance and approved by the research team.

## **6.4 Reported impact considerations**

Data in this report is based on estimates provided by the respondents. While steps are taken during interviewing to ensure that data is accurate (interviewers reading back responses on questions with numeric responses, respondents being offered the chance to provide a banded response rather than an exact numeric answer if they are unsure), caution should be taken as there is the potential for respondents to 'guess' at some answers where they do not know the precise figure.

Analysis of the number of exporting contracts won (and extensions gained) and value of contracts includes averages. The average used in this report is the median. The median is the middle value in a data set, when the values are arranged in order of magnitude from smallest to largest. The median is a good measure of the average value when the data includes exceptionally high or low values.

The alternative is to use the 'mean' (the sum of all response values divided by the number of responses). However, this can be overly influenced by a small number of exceptional cases – in this context, a small proportion of businesses with an exceptionally large number of new contracts won or exceptionally large values of these contracts. This adds volatility within the dataset at one time point, and can make tracking changes over time less reliable due to the amount that these cases differ from the rest of the results. Additionally, as this is a survey and not all businesses take part, if any businesses that record exceptionally large wins in the survey one year do not participate the next then this would have a large impact on the data.

Please note that we did not apply confidence interval to median scores, as they are not relevant for this study.

## **6.5 Derived variables**

Several questions in the survey asked respondents to give a rating using a scale from 0 to 10, where 10 was the most positive response and 0 was the least positive response. Responses have mostly been grouped into positive (a score of seven or higher), neutral (a score of four to six), and negative (a score of three or below). Respondents could also say 'Don't know' or 'Not applicable'. The exception to this was responses to the question which was used to calculate the Net Promoter Score (NPS) for each export product or service. The NPS is a summary of how likely it is that businesses would recommend using the service or product. Businesses were asked to provide a score between zero and ten, with ten being the most positive response. Scores of nine and ten were banded together as 'promoters' and scores of zero to six as 'detractors'. NPS is calculated as the difference between the percentage of 'promoters' and 'detractors'. A positive NPS means more people would recommend the service than would not.

Respondents who said the question did not apply to them were excluded from the analysis. Those who answered 'Don't know' or 'Refused' are included in the charts, unless no respondents gave this answer.

There are a number of export ‘outcomes’ such as number of new overseas export sales won, or value of new overseas export sales that are provided by survey respondents. For all questions asking about numbers (such as contracts won and value of contracts) responses were read back to the respondent by the interviewer. If a respondent did not know they were given the opportunity to provide a banded follow up. Caution should be taken as there is the potential for respondents to ‘guess’ at some answers where they do not know the precise figure. When presenting averages, only the numeric responses were included. Responses to the ‘banded’ follow ups were not included in any calculations of averages.

### **6.5.1 Reporting exporting outcomes based on ‘all respondents’**

Cognitive testing of the questionnaire suggested that not all respondents that had won any new overseas sales contracts would be able to provide an answer about the number of these contracts that were *helped by* the DIT product or service that we were asking about, or about DIT help as a whole. For this reason, respondents that had won any new overseas sales contracts in the last 12 months were asked Qcontractservice:

*Qcontractservice: Do you think you are able to estimate the number and value of new overseas business contracts that your business won in the last 12 months that were helped by [SAMPLED SERVICE]?*

Yes

No

No- Service had no impact

Don't know

Refused

If the answer to Qcontractservice was not “Yes” the respondent was asked QcontractDIT:

*QcontractDIT: Are you able to estimate the number and value of new overseas business contracts you won that were helped by the support received from all your interactions with DIT?*

Yes

No

No- DIT made no impact

Don't know

Refused

If the answer to either Qcontractservice or QcontractDIT was “Yes” the respondent was asked a series of questions about the impact of DIT services on their new overseas sales contracts (such as the number that DIT helped win and the value of contracts that DIT helped win. If the respondent said “No- DIT made no impact” at QcontractDIT then the respondent was given a response of 0 contracts when asked QContractNumber:

*Qcontractnumber: And how many of the new overseas contracts won in the past year were helped by SAMPLED SERVICE/DIT support?*

If they said “No”, “Don't know” or “Refused” then they were not asked questions about the impact of DIT help on number and value of new overseas sales contracts. The findings from the cognitive testing suggested that the alternative approach – asking all exporters that had won any new overseas sales contracts in the previous 12 months Qcontractnumber – would have provided inaccurate data and DIT were keen to ensure that only respondents that were confident in providing an answer to Qcontractnumber were asked the question. This means that a proportion of those that had won any new overseas sales contracts were not asked questions about DIT help on their ‘export sales’ and a derived variable based on all respondents is not possible due to this ‘gap’. In order to create data on the proportion of all businesses that DIT helped win any new overseas

sales contracts there was an additional calculation made. The survey contractor took the assumption that the proportion of businesses 'helped' by DIT was the same for those that could provide an estimate as it was for those that could not provide an estimate. The calculation was therefore:

- a) % of respondents that won any new overseas sales contracts \*
- b) % of those asked Qcontractnumber that DIT helped win any new overseas sales contracts

For example:

- a) 66% of ITA respondents won any new overseas sales contracts
  - b) 51% of ITA respondents asked Qcontractnumber reported that DIT helped them win at least one new overseas sales contract
- a) 66% x b) 51% = 34%.

## **6.6 Reporting**

Where percentages shown in charts or tables do not total to exactly 100% (or where they do not exactly total to a summary statistic given, such as agree/disagree) this is due to a combination of rounding to the nearest whole number and because some questions allowed participants to choose more than one response option.

Where the results for one group of respondents are compared with the results for another group, any differences discussed in the text of this report were statistically significant at the 95% probability level, unless otherwise stated. This means that we can be 95% confident that the differences observed between the subgroups are genuine differences, and have not just occurred by chance.

Base sizes, displaying the number of people who gave a response to any question (excluding those who said that the question did not apply to them), are shown on each chart.

As mentioned previously, data in this report is based on estimates provided by the respondents. Caution should be taken as there is the potential for respondents to 'guess' at some answers where they do not know the precise figure.

---

### Legal disclaimer

Whereas every effort has been made to ensure that the information in this document is accurate the Department for Business and Trade does not accept liability for any errors, omissions or misleading statements, and no warranty is given or responsibility accepted as to the standing of any individual, firm, company or other organisation mentioned.

### Copyright

© Crown Copyright 2023

You may re-use this publication (not including logos) free of charge in any format or medium, under the terms of the Open Government Licence.

To view this licence visit:

[www.nationalarchives.gov.uk/doc/open-government-licence](http://www.nationalarchives.gov.uk/doc/open-government-licence) or email: [psi@nationalarchives.gov.uk](mailto:psi@nationalarchives.gov.uk).

Where we have identified any third party copyright information in the material that you wish to use, you will need to obtain permission from the copyright holder(s) concerned.

This document is also available on our website at [gov.uk/dbt](http://gov.uk/dbt)  
Any enquiries regarding this publication should be sent to us at [enquiries@trade.gov.uk](mailto:enquiries@trade.gov.uk)

Published July 2023 by Department for Business and Trade