Trade-Association Endorsements, Postal & Online Responses, and Other Factors Affecting Response Rates: Reflections on a Survey of Micro-Firms

Marc E. Betton, J. Robert Branston, and Philip R. Tomlinson
University of Bath, UK
M.Betton@bath.ac.uk
ORCID ID: 0000-0001-9041-1521
J.R.Branston@bath.ac.uk
ORCID ID: 0000-0002-2332-2403
P.R.Tomlinson@bath.ac.uk
ORCID ID: 0000-0001-6292-3204
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Abstract: Researchers using survey-based methods must do everything they can to enhance their response rates in order to improve the robustness and validity of the data they collect for analysis. Extant literature has explored several techniques to do this across many contexts, including experiments/meta-analyses. This paper addresses two particular deficits by considering the difficult context of micro-firms and also the impact of trade-association endorsement (rather than sponsorship). This is done by conducting an in-depth ex-post review of a single, successful survey case conducted and utilised in a study of English tourism firms and regulation. We explore several factors: the type of trade-association support (including levels of endorsement, access to member firms, and messages sent on behalf of the research team); postal versus online questionnaires; message type/frequency; and the importance of giving respondents an opportunity for open comments. The paper ends with a comprehensive set of suggestions for future researchers.

Keywords: Survey methods, response rate, online questionnaires, trade-associations, endorsement, sponsorship.

1. Introduction

Survey response rates are an important aspect of survey-based research methods (Mellahi and Harris, 2015). Researchers aim for a high response rate to ensure that they have sufficient data (and variation within that data) to run their desired analyses (Baruch and Holtom, 2008). A high response rate is also a robust defence against the risks of non-response bias, external validity, and generalisability (Dillman, Smyth and Christian, 2014; Dillman, 2016). Furthermore, there is evidence that researchers, journal reviewers, and journal editors, generally consider response rates to be an indicator of quality and the validity of survey data (Mellahi and Harris, 2015). It is therefore in the interests of researchers using survey data that all efforts to enhance response rate are taken, especially given evidence that response rates are falling worldwide (Schoeni et al., 2012). However, much of the research-into, or information-about response rates is limited to either experimental surveys (i.e. not ‘real-world’ experience) or the brief information that authors can include in their applied results papers. We believe that researchers have much to gain by sharing their real-world survey experiences with others in more detail.

In our case, a study of owner-managers of English micro-firms, defined here as firms with 0-9 employees (Department of Trade and Industry, 1995; Department for Business, Innovation and Skills, 2016), was undertaken in order to explore regulatory issues, with the applied results having already been published in Betton, Branston and Tomlinson (2019) and Betton, Branston and Tomlinson (2020). The contribution of this paper is to provide a more detailed overview of our survey process than is generally possible in applied academic papers (such as our own), so that future researchers can better understand the successful method utilised in this case involving difficult to survey micro-firms.

The aim therefore, is to conduct an ex-post in-depth review of a single survey case which employed a combination of survey approaches, in order to gain insight into improving response rates, while also identifying useful wider lessons. The case was an independent academic survey in which we made sure to collect extra data on the distribution and response patterns in order to learn wider methodological lessons from the applied work. This paper is therefore not based on a survey designed exclusively to explore survey distributions methods, and is thus somewhat constrained by the data we were able to collect given the nature of the context. For instance,
this means we have data on postal and online questionnaires, but we did not randomly split our survey population in two in order to explore this difference in great detail.

In particular, we examine the impact on response rates of: the effect of trade-association endorsement (including different levels of support and number of endorsements); the differences between postal and online questionnaires; the number, type, and time of messages before questionnaire completion; and the use of a project website; as well as wider lessons, such as the use of an unsolicited comments box. This exploration is made through observation of the methods of communicating with potential respondents and associated mean responses received, as well as an OLS regression model. From this, we would hope future researchers looking to survey a variety of firms on a range of issues, most especially micro-firms, can not only draw upon the techniques which we found to be successful, thereby improving their own response rates, but also consider including similar small-scale tests in their own research, which can then be reported upon.

The remainder of this paper is set out as follows. The second section provides an overview of recent literature relating to response rates, while further literature is also discussed in relevant later sections. The third section explores our case, detailing how the questionnaire was developed and distributed, as well as discussing related aspects to be explored herein, such as the use of trade-association support, and methods of communication and completion. The fourth section explores how the various aspects of our study impacted on response rates, including the communication method (postal versus online), the levels of trade-association endorsement, and the use of an unsolicited comments box. The final section then briefly concludes and summarises our suggestions for future survey-based research (Table 7).

2. Literature Overview

There is already considerable research into various techniques to improve questionnaire response rates. One popular strand involves exploring the impact of the delivery mode through numerous means. For example, Hardigan, Popovici and Carvajal (2016) found postal questionnaires to have a higher response rate than online or mixed mode surveys. However, Beebe et al. (2018) found mixed-mode surveys (and multiple messages) to have a 10% higher response rate than single modes. Bucks, Couper and Fulford (2019) found that while there were differences in sequential/concurrent modes (i.e. web then mail / mail then web, or web and mail), these differences were eliminated by the end of the survey period. Other recent investigations include Lavrakas et al. (2017), who explored envelope colour and mode of address; while Cook et al. (2016) found that non-monetary incentives and a posted reminded had no effect on response rates.

Another strand of literature (e.g. Cycyota and Harrison, 2006; Baruch and Holtom, 2008; Manfreda et al., 2008) adopt a meta-analysis approach of the methods reported in applied published papers. One recent and thorough example is Mellahi and Harris (2015), who ultimately examine the methods of 1,093 papers, and which can therefore be considered to be an authoritative source. They provide an extensive review of extant literature on a number of potential strategies to improve response rates, including survey design, questionnaire distribution, and the use of incentives, which they explore across a number of managerial fields.

It is however, important to note that there are still some contradictions in the literature. An example, Dennis Jr (2003) found that no form of incentive had a meaningful impact on response rates, while Rose, Sidle and Griffith (2007) and Gendall and Healey (2008) found that the inclusion of money (or similarly valued items) with postal questionnaires would improve response rates. One reason for the continued uncertainty is that these findings may be highly reliant on their context, i.e. it may be that monetary incentives improve response rates in populations of the general public, while they have no impact for business populations. In addition, much of the existing literature into response rates (e.g. Millar and Dillman (2011) or Petrovčič, Petrič and Lozar Manfreda (2016)), is based on experiments, often exploring just one particular aspect (e.g. mode of communication), with these frequently explored within a classroom setting, rather than reviewing actual fieldwork with real-world conditions. It would therefore seem prudent that researchers in all fields and contexts share as much detail about their methods as possible so that wider lessons can be drawn.

In particular there are a number of areas which remain poorly considered in the extant literature, such as the use of trade-association endorsement. This is materially different to survey sponsorship, as that implies a greater level collaboration between the sponsor and the research team throughout the research process; and has already been well explored (see Presser, Blair and Triplett, 1992; Dennis Jr, 2003; Fan and Yan, 2010;
Trade-association endorsement implies a lower level of engagement and support of the survey, but could still prove helpful, yet is not as well investigated. Moreover, there is an ongoing debate around the use of online questionnaires, which remain contentious, even though the use of online services seems to have only increased over time (Manfreda et al., 2008; Fan and Yan, 2010; Schley, 2013; Dodou and de Winter, 2014; Zhang et al., 2017). Furthermore, micro-firms are somewhat under-served in academic research (Dennis Jr, 2003; Freeland and Harrison, 2006; Betton, Branston and Tomlinson, 2019) and hence the literature on appropriate research methodology targeted at such small firms is similarly lacking.

Micro-firms, the smallest category of firms (typically defined as having 0-9 employees (Department of Trade and Industry, 1995; Department for Business, Innovation and Skills, 2016)) are notoriously difficult to research, which makes methodological insights especially useful. There are a number of reasons for this difficulty, including that their own internal resource constraints leaves them with little time for participation (Edwards et al., 2002; Sauermann and Roach, 2013) and that they have a common unease for any form of outside interference (Johnson, 2002). Such difficulties result in their either being included as part of a wider ‘small firm’ segment, or excluded altogether (for example: Arrowsmith et al., 2003; Getz and Carlsen, 2005; Servon et al., 2010). It is therefore unsurprising that there are relatively few contributions that offer insights into micro-firm survey engagement, but what is available suggests low response rates are to be expected. For example, Jay and Schaper (2003) cite studies of micro-firms with response rates of 4-6%, while Duarte Alonso, Bressan and Sakellarios (2017) reported a 19.9% response rate. Despite these difficulties, it is essential that such firms are included in research, as they make up 96% of firms in the UK and account for 32% of private sector employment (Department for Business, Energy & Industrial Strategy, 2018). They are similarly important to other economies. For instance, they account for 93% of firms in the EU (Eurostat, 2018), and 79% in the US (US Census Bureau, 2018).

Given the apparent preference for high response rates to ensure robustness of results, there remains a further issue in that different contexts and industries have different expectations for what is considered acceptable (Saunders, Lewis and Thornhill, 2015). For example, Saleh and Bista (2017) report a response rate close to 80% in an educational setting, while others accept as reasonable a rate closer to 8% within an SME context (Brustbauer, 2016). Indeed, some authors suggest any response rate can be acceptable if sufficient tests are made to explore the statistical power of results and the risk of non-response bias (Hair, Black and Babin, 2010; Malhotra, Birks and Nunan, 2017). Nevertheless, it seems important to consider the geographical and industrial contexts at hand when considering response rates alongside checks for statistical robustness. For instance, since micro-firms are generally less likely to respond to surveys (Freeland and Harrison, 2006), lower response rates are to be expected. This makes survey design especially important in this context given that a small increase in response rate can therefore have a relatively large impact. In this regard it is notable that Freeland and Harrison (2006) reported response rates around 11% internationally, while UK-based research, somewhat similar to the study considered herein (although with a good number of larger firms), presents a pattern towards a response rate above 20% (Tomlinson and Fai, 2016; Tomlinson and Branston, 2018). Additionally, a trade-association active in the area of our case previously conducted two surveys of its members on a similar topic with response rates of between 19% and 28% (BH&HPA, 2011).

### 3. Our Case

The survey explored herein investigated regulation in English micro-firms, with regulation defined as the “imposition of rules by government, backed by the use of penalties that are intended specifically to modify the … behaviour of individuals and firms in the private sector” (Organisation for Economic Co-operation and Development, 1993, p.73). This is an especially difficult subject and context given the known issues surrounding micro-firm data collection and the somewhat sensitive subject of regulation (since firms do not wish to risk being reported for non-compliance). In particular, we selected the accommodation industry in England because it is highly regulated and has a high proportion of micro-firms (Tourism Regulation Taskforce, 2012; Tourism Alliance, 2016). The wider UK nations were excluded due to regulatory differences between them, which were beyond the scope of the study.

We developed a database of firms from a number of publicly available sources, which was used to directly contact potential respondents. In addition, the database included details of all communications with potential respondents, including the date, method, and content. This level of detail not only aided the data collection process (i.e. allowing us to know who to contact and when), but it also provides much of the data for the analyses.
herein. The survey ran for a six-month period from October 2014. While there may be risk of self-selection bias (Saunders, Lewis and Thornhill, 2015), we believe this is mitigated through numerous means. Our distribution consisted of directed contact and wider marketing, both with and without trade-association support. While there is a risk that ‘only’ those with an interest in the subject were motivated to respond, regulations are a central issue to micro-firms and the all-encompassing role of the owner-manager means that they are highly likely to have views to share.

3.1 Trade-Association Support

Sponsorship has been frequently found to improve response rates (Fan and Yan, 2010) and this, in the form of endorsements, was factored into the study at its inception. Furthermore, there is considerable evidence that trade-associations play a vital role in supporting micro-firms (Bennett and Ramsden, 2007; Lawton, Rajwani and Doh, 2013; Pleasance and Balmer, 2013; Department for Business, Energy & Industrial Strategy, 2016). Indeed, in a regulatory context trade-associations have been noted to “offer some guidance that is more concise and reader-friendly than official government advice” (Better Regulation Executive, 2010, p.14). Moreover, in the accommodation context, two trade-associations were formed as a direct result of regulatory changes, thereby further demonstrating both their role in regulation and their potential role in supporting research (Bed and Breakfast Association, 2014; BedPosts, 2014).

We sought trade-association involvement from the inception of the study for several reasons, including: endorsement (as a means of promotion and demonstrating legitimacy); access to member firms (to promote the survey); and to leverage their unique knowledge of their membership and the industry to design and frame the survey questions and communications. Several trade-associations and marketing groups were approached throughout the study. In exchange for support they were offered a summary of results, which has since been provided. The Bed and Breakfast Association helped in the development of the survey, particularly with the questions relating to fire regulations, and they were the first to endorse the study (shortly after the questionnaire was launched). As the study and survey continued, a total of four trade-associations endorsed the study, while a further three promoted it without formal endorsement. The direct effects of trade-associations and endorsements on response rates are explored in Sections 4.2-4.5.

3.2 Questionnaire Development and Format

The questionnaire was original, developed by the authors specifically for the research project exploring regulation and micro-firms. Questions were informed by past questionnaires in extant literature, and were carefully developed in line with Dillman, Smyth and Christian (2008) and Dillman, Smyth and Christian (2014) to ensure a link with the underlying concepts to be explored and to avoid bias such as leading questions. Furthermore, scale questions were developed in line with Spector’s (1992) guidelines. The questionnaire was pilot tested to explore sample generation, ascertain response rates through various methods of contact, and to access the internal validity and reliability of the questions and method utilised. The main trade-associations were also approached to check the wording and understanding of questions, while also attempting to secure endorsements, with feedback received from the largest. Following this, several small changes were made to the questionnaire and data collection plan, resulting in the methods described here. Finally, the questionnaire ended with an unsolicited comments box, allowing respondents to make any (or no) comments on the issues raised in the questionnaire or of the survey itself. The use of these comments is explored in Section 4.6.

The questionnaire was designed as a small booklet for physical completion, with each postal questionnaire containing a unique ID number. This was then transposed into an online questionnaire using the Qualtrics platform, which also has a unique ID number for each response. In addition to the question order, fonts and formatting were also closely matched. The advantages of the Qualtrics platform allowed the online version to use ‘logic functions’ to hide questions which were irrelevant to certain respondents (based on their answers to earlier questions), whereas the postal version simply instructed respondents to skip certain questions based on the required conditions. Differences between the postal and online versions of the questionnaire, are explored in Sections 4.1 and 4.4.

3.3 Communications

The communication strategy for the study broadly followed the pattern laid out by Dillman, Smyth and Christian (2008) and updated by Dillman, Smyth and Christian (2014). This included the method, frequency, and content of communication. Contact with potential respondents was made either via post or email, and was personalised...
where possible. Potential respondents without email addresses were sent postal questionnaires, as well as randomly selected firms with email addresses. A total of 1,985 postal questionnaires were distributed with freepost return envelopes, which was the maximum possible due to cost and very limited budget. All follow-up messages were sent via email (where an email address was known), while no follow-up messages were sent to potential respondents without an email address, again due to budget limitation. Therefore, our survey included both mixed-modes of communication (postal and email) as well as mixed-modes of response (postal and online) (Edith, 2018).

Messages were broadly sent in six waves throughout the data collection period. This meant there was a constant stream of invitation and follow-up messages being sent at all times, while also ensuring firms had a prolonged period to respond. This was essential in this case given that many small accommodation firms close ‘out of season’. In addition, the waves of communication allowed for constant updates to messages, such as the addition of further trade-association endorsements as they became available. Logos and names of each trade-association that endorsed the study were included on cover letters. The effects of message content and timing of questionnaire distribution are explored in Sections 4.4-4.5.

3.4 Support Website

In order to balance the competing requirements of detail (to enhance understanding and alleviate concerns) and brevity (to improve the chances of being read/acted upon) in communications, a dedicated website was launched to provide greater detail on the study (www.bizsurvey.org). This allowed communications to be more succinct, while offering a link to elaborate with more information. The website was specifically written in a conversational tone, tailored to both potential respondents and other interested parties which may have investigated participation. The aims of the study, along with the state of industry endorsement were included and kept up to date during the study and beyond. The website received approximately 60 visitors a week on average throughout the data collection period, with potential respondents using it to learn more about the survey, contact the research team, and potentially access the online questionnaire for completion. The use of a dedicated website also allowed for bespoke but very similar web links which could be created and distributed as required. For example, each supporting trade-association was given a unique URL, the use of which could be tracked. An analysis of this technique is included in Section 4.3.

4. Analysis and Discussion

4.1 Postal Versus Online

A total of 3,805 questionnaires were dispatched using both postal (hard-copy) and online means. Eight respondents specifically requested that a postal questionnaire was sent to them, and these were either firms that had been contacted electronically or had heard about the survey but had not yet been contacted directly. Such requests were handled in the usual postal manner, including cover letters (which noted the request) and pre-paid return envelopes. A number of responses were completely anonymous. In the case of online questionnaires, these are respondents who followed an anonymous link to the questionnaire (e.g. from the survey website) and chose not to provide their name; in the case of postal questionnaires, this required the respondent to both withhold their name and destroy the unique questionnaire ID number. The majority of responses could be tracked to specific individuals, either through unique postal questionnaire ID numbers or unique Qualtrics questionnaire links (sent out in personalised email messages). The totals of these methods are presented in Table 1.

<table>
<thead>
<tr>
<th></th>
<th>Postal</th>
<th></th>
<th>Online</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Sent</td>
<td>Received</td>
<td>Sent</td>
<td>Received</td>
</tr>
<tr>
<td>Anonymous</td>
<td>n/a</td>
<td>1</td>
<td>n/a</td>
<td>54</td>
</tr>
<tr>
<td>Requested by respondent (%)</td>
<td>8 (62.50)</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Tracked (%)</td>
<td>1977</td>
<td>307 (15.77)</td>
<td>1820</td>
<td>339 (18.63)</td>
</tr>
<tr>
<td>Total</td>
<td>1985</td>
<td>313</td>
<td>1820</td>
<td>393</td>
</tr>
</tbody>
</table>

*Note: no respondents requested online links, but 13 respondents completed the questionnaire without prior contact.*

Of the 706 total returned questionnaires, 313 were postal (44.33%), 339 (48.02%) were online and trackable, with a further 54 (7.65%) online responses which may be anonymous or those who were sent a postal questionnaire but completed online. This represents response rates of 15.77% for postal, 18.63% for tracked
online, and 18.55% overall. Given the difficulties inherent to our micro-firm context, we suggest this is a respectable return, although the concept of an ‘acceptable’ response rate is somewhat ambiguous and context specific (Mellahi and Harris, 2015; Saunders, Lewis and Thornhill, 2015; Brustbauer, 2016; Cassells and Lewis, 2017). We also note that five out of eight (62.5%) of respondents who requested a postal questionnaire actually completed it. While these respondents were clearly already somewhat engaged with the study given their request, this suggests (although the sample size is small) that providing a hard copy and distributing it when requested is a worthwhile strategy.

While the postal questionnaire itself had a healthy response rate, the tracked online response rate was higher, and greater still when including anonymous responses. However, there were no differences in types of responses between online and postal in terms of the demographics or type of respondents. Furthermore, when conducting our applied analyses there were no statistically significant differences in the overall findings between the online or postal responses. We therefore conclude that ultimately, offering a postal questionnaire is useful (and was preferred in a small number of cases), but the online questionnaire was the fall-back option for potential respondents. The cost of printing questionnaires and return envelopes was over £480, with further outgoing and return postage costs in excess of £2,000. We note that there is some variation in the return postage costs as some respondents (needlessly) added stamps to their freepost envelope, while this often reduced the cost to us, it sometimes actually increased the costs due to the incorrect stamps being added which resulted in a fine and handling charges. We therefore recommend that in addition to printing the address, freepost envelopes print “no stamp required” on the top right of the envelope. In addition, there is a further, largely incalculable but not insignificant time-cost related to creating the postal packages and entering questionnaire ID numbers into the database. Moreover, the responses of each returned postal questionnaire had to be entered manually into the dataset. By comparison, email addresses for online recipients were exported from the database into Qualtrics, messages were sent, and this was all logged in the database within minutes. Responses had to be checked, but not transposed into the dataset. While there is a cost to the various applications in use in the online distribution process (Qualtrics and Microsoft Office, as well as STATA for analysis), through the use of standard university licences, the direct cost to the study was negligible and most of these would have been required even if the questionnaire had been entirely postal in nature.

Given the monetary cost and time implications, future studies should not consider ‘online only’ as a handicap, most especially given the higher response rate for that medium. We also note that across all analyses we have undertaken, there has been no statistical difference between the results from the postal and online questionnaires, indicating that the questionnaire mode has no discernible impact on the responses given.

### 4.2 Trade-Association Support and Direct Membership Access

There are several ways that trade-associations can provide support for studies such as ours. Firstly, as detailed above, they can help with the refinement of the survey questions, providing feedback on understanding and suitability based on their experience. In our case, the main associations were approached, with several suggestions made to improve wording, which were incorporated before the survey was launched (not all suggestions were accepted in the interests of academic independence).

Once the survey is launched they can act as a source of a list of potential respondents, allowing researchers to have direct access. This could be achieved by formally providing a restricted mailing list of members. However, such availability will be unlikely in many contexts, particularly if a formal endorsement of the study is not forthcoming. It can also be achieved when membership lists are provided publicly. In our case of the accommodation sector, membership lists were sometimes publicly available through a centralised website or guidebook, such as the Farm Stay UK website which details all Farm Stay UK members.

Trade-associations can also support studies through formal means, the most prominent being official endorsement, whereby the association publicly backs the study. In our case, four associations ultimately endorsed the study and we highlighted these endorsements in all communications and on the support website. As part of this endorsement, the trade-associations implicitly approved of the contents of the (already launched) questionnaire. A further form of support is by trade-associations communicating with their members on behalf of the study, such as by sending information about the study to members. This may be in the form of an article in existing publications, or a focussed, dedicated message. While it carries an implicit endorsement, it may or may not include a full formal endorsement. Ultimately, three associations sent communications about our study to their memberships without a formal endorsement. The form of support we received from several trade-
associations is presented in Table 2, along with the number of firms held in the database and the number of respondents.

**Table 2:** Trade-Association support and membership response rates

<table>
<thead>
<tr>
<th>Trade-Association</th>
<th>Endorsement</th>
<th>Communications sent on behalf</th>
<th>Membership access</th>
<th>Number in the sampling frame</th>
<th>Number of respondents (% of database)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Farm Stay UK</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>604</td>
<td>202 (33%)</td>
</tr>
<tr>
<td>BedPosts</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>533</td>
<td>67 (13%)</td>
</tr>
<tr>
<td>BH&amp;HPA</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>557</td>
<td>94 (17%)</td>
</tr>
<tr>
<td>The Caravan Club</td>
<td></td>
<td></td>
<td>✓</td>
<td>1101</td>
<td>133 (12%)</td>
</tr>
<tr>
<td>AA</td>
<td></td>
<td></td>
<td>✓</td>
<td>332</td>
<td>33 (10%)</td>
</tr>
<tr>
<td>Bed and Breakfast Association (BBA)</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td>n/a*</td>
<td>35 (n/a)</td>
</tr>
<tr>
<td>British Hospitality Association (BHA)</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td>n/a*</td>
<td>8 (n/a)</td>
</tr>
<tr>
<td>VisitEngland</td>
<td></td>
<td></td>
<td></td>
<td>n/a*</td>
<td>52 (n/a)</td>
</tr>
</tbody>
</table>

*Note: as these trade-associations do not publicise a membership list, they were not used to populate the database

Table 2 suggests that trade-association support through communication (such as an article in their publications) is not enough to engender a sufficient level of response for quantitative analysis. Direct communication between the researchers and potential respondents seems to be a key requirement.

Farm Stay UK was the only trade-association to completely engage with our survey: they endorsed it, contacted their membership on behalf of the study, and provided contact information for their membership (through their public website) allowing for direct communication. This resulted in the highest trade-association response rate (33%). Following this, the trade-associations allowing direct access to members generally provided a higher response rate than those that did not. While it is not possible to calculate the response rates for those without membership access, if we surmise that communications were indeed sent to the maximum stated membership (which is likely an overestimation and copies of apparent messages were not provided to the researchers in all cases), the response rates for the BBA, BHA, and VisitEngland would each equal less than 1%. This is notably smaller than the cases where direct membership access was possible. Indeed, from this, we suggest that direct membership access, even if through public sources, is of greater advantage for response rates than either trade-association endorsement (formal or otherwise), or communications sent on behalf of the study. However, endorsement AND membership access likely yields the best response rate.

### 4.3 Source Tracking Links

To further ascertain the value of the various means through which potential respondents could reach the questionnaire, we developed a technique to track each individual source. Through the domain of the support website a number of unique and individually identifiable links to the online questionnaire were created. This meant that (for example) a response via the study support website could be identified separately from a response via the address on the postal questionnaire. Individual links were also given to each support trade-association to be used in direct messages to their members and/or in feature articles detailing the survey. These links and the number of responses using them is included in Table 3. Note that responses made via links in emails (which were individually tracked through Qualtrics) and postal replies are not included in the table.
Table 3 demonstrates that this source link alone is not a suitable method for tracking how respondents accessed the questionnaire, given the disparity between the number of links used and the number of members in a group. This is to be expected as multiple entryways were encouraged to ensure ease of access to the questionnaire. For example, a respondent who was sent a postal questionnaire could have: i) used the postal questionnaire; ii) used the weblink included in the postal questionnaire; iii) visited the support website and followed the link there; or iv) picked a link from one (or more) of the trade-association publications/communications they were sent.

Table 3: Responses following unique links

<table>
<thead>
<tr>
<th>Source of weblink</th>
<th>Responses via the link</th>
<th>Number of respondents reporting membership</th>
</tr>
</thead>
<tbody>
<tr>
<td>Postal questionnaire</td>
<td>67</td>
<td>n/a</td>
</tr>
<tr>
<td>Study support website</td>
<td>31</td>
<td>n/a</td>
</tr>
<tr>
<td>BedPosts*</td>
<td>10</td>
<td>16</td>
</tr>
<tr>
<td>Visit England*</td>
<td>5</td>
<td>52</td>
</tr>
<tr>
<td>Links requested by specific individuals</td>
<td>1</td>
<td>n/a</td>
</tr>
<tr>
<td>Farm Stay UK</td>
<td>0</td>
<td>202</td>
</tr>
<tr>
<td>Bed &amp; Breakfast Association</td>
<td>0</td>
<td>35</td>
</tr>
<tr>
<td>British Hospitality Association</td>
<td>0</td>
<td>8</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>114</strong></td>
<td><strong>313</strong></td>
</tr>
</tbody>
</table>

*Note: these trade-associations had to be manually entered into the ‘other’ box.
Note: respondents could state membership of any number of trade-associations, but would only have responded once and hence used one weblink*

While there is much uncertainty as to how respondents came to be aware of the survey, it seems clear that reliance on third-party publications is unlikely to yield a high response rate, especially when viewed in conjunction with trade-association endorsement levels (see Section 4.2 and Table 2). For instance, we believe the BBA sent an email to over 8,000 members and associates (the exact figures were not offered), yet none followed the bespoke link they were provided.

### 4.4 Message Type and Endorsement Totals

We next explore the messages that were sent to prospective respondents, using correlations and an OLS regression model to investigate a number of factors which may have affected the response rate (i.e. the dependent variable). The model was specified as:

\[
\text{Response Rate} = B_0 + B_1 \text{Message method} + B_2 \text{Survey period} + B_3 \text{Message type} + B_4 \text{Number of trade - association endorsements} + \epsilon_1
\]

**Dependent variable** - Response Rate: the percentage of each set of messages sent to potential respondents that resulted in a completed questionnaire response (i.e. if 100 messages are sent out in a particular wave, how many of these resulted in a submitted questionnaire response).

**Control variables** - Message Method: a categorical variable indicating if the message is postal (0) or email (1). Survey Period: a categorical variable indicating if the message was sent during the first (0) or second (1) half of the six-month data collection period, thereby representing seasonal variation (as many of the target firms are closed during the ’off-season’). Message Type: a categorical variable indicating the general content of the message, invitation (0), first follow-up (1), second follow-up (2), or third follow-up (3).

**Independent variable** - Number of Trade-Association Endorsements: indicating the number of formal trade-association endorsements which had been made and were therefore detailed at the time in each message (a raw number from 0-4).

Table 4 presents the correlations between these variables, then Table 5 presents the regression results, first with the control variables, then with the independent variable.
Table 4: Variable correlations

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Response rate</td>
<td>-</td>
<td>-0.24</td>
<td>-0.27</td>
<td>-0.23</td>
<td>-0.11</td>
</tr>
<tr>
<td>2. Message method</td>
<td>-0.24</td>
<td>-</td>
<td>0.24</td>
<td>0.43*</td>
<td>0.07</td>
</tr>
<tr>
<td>3. Survey period</td>
<td>-0.27</td>
<td>0.24</td>
<td>-</td>
<td>0.22</td>
<td>0.65*</td>
</tr>
<tr>
<td>4. Message type</td>
<td>-0.23</td>
<td>0.43*</td>
<td>0.22</td>
<td>-</td>
<td>0.18</td>
</tr>
<tr>
<td>5. Number of Trade-Association endorsements</td>
<td>-0.11</td>
<td>0.07</td>
<td>0.65*</td>
<td>0.18</td>
<td>-</td>
</tr>
</tbody>
</table>

* p<0.05

There is no statistically significant correlation between response rate and trade-association endorsements, lending further credence to the notion (detailed in Section 4.2) that endorsement alone does not drive responses. There is an expected, though unimportant, correlation between message type and message method, which simply reflects the aforementioned point that all of the follow-up messages were via email. There is also an expected correlation between trade-association endorsements and survey period, given that the number of endorsements increased over time. Given such correlation might indicate multicollinearity, the VIFs for each variable were checked, and none were bigger than 1.84 which is well within the acceptable range (Pallant, 2011; Tabachnick and Fidell, 2013).

Table 5: OLS regression. Dependent variable: Message Response Rate

<table>
<thead>
<tr>
<th></th>
<th>(1)</th>
<th>(2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>12.42*** (3.01)</td>
<td>11.64** (3.64)</td>
</tr>
<tr>
<td>Message method</td>
<td>-2.01 (3.32)</td>
<td>-1.80 (3.42)</td>
</tr>
<tr>
<td>Survey period</td>
<td>-3.37 (3.18)</td>
<td>-4.46 (4.23)</td>
</tr>
<tr>
<td>Message type</td>
<td>-0.85 (1.44)</td>
<td>-0.92 (1.48)</td>
</tr>
<tr>
<td>Number of Trade-Association endorsements</td>
<td>0.58 (1.44)</td>
<td>0.58 (1.44)</td>
</tr>
<tr>
<td>R²</td>
<td>0.12</td>
<td>0.12</td>
</tr>
<tr>
<td>Adjusted R²</td>
<td>0.01</td>
<td>-0.03</td>
</tr>
<tr>
<td>F (3, 24)</td>
<td>1.06</td>
<td>0.81</td>
</tr>
<tr>
<td>F (4, 23)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* p<0.1, ** p<0.05, *** p<0.001. Note: Standard Error in parentheses

We note that none of the variables included in the model are statistically significant. While this would typically be cause for concern in econometric studies, in this case it simply suggests that the response rate of each message is not associated with the message method, type, or the time of year. This is a non-trivial result, which not only lends credence to the validity of the data we collected for the study of regulation in micro-firms, but also suggests future researchers should not be fixated on any one particular approach for raising response rates. Furthermore, not only is there also no association between the response rate and the number of trade-association endorsements, but introducing this variable has both no effect on the R², and also causes the adjusted R² value to become negative, indicating that trade-association endorsement really does not explain the response rate to our messages (Wooldridge, 2009; Hair, Black and Babin, 2010; Warner, 2012). This further supports our other results so far, that endorsement alone does not influence respondents towards completing a questionnaire.

4.5 Number of Messages and Time to Completion

Respondents were sent between one and five communications during the survey period, the summary statistics of which, along with those for the number of days between the last communication and completion, are included in Table 6.

Table 6: Summary statistics for number of messages sent and the number of days to questionnaire completion

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>SD</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of messages before completion</td>
<td>2.55</td>
<td>1.07</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Number of days between last message and completion</td>
<td>7.82</td>
<td>8.87</td>
<td>0</td>
<td>57</td>
</tr>
</tbody>
</table>

Note: that postal questionnaires necessarily took longer to return as they had to be posted out, completed, posted back, and logged; whereas online responses could be sent and then completed in a matter of minutes, and were automatically logged immediately.
This demonstrates that while 17% of respondents completed the questionnaire after receiving only one message, it generally required one or two further messages before respondents actually undertook the questionnaire to completion. In most cases, the second message was the one which included either the postal questionnaire or a link to the online questionnaire; although we note that many of the pre-notice messages included a link to the support website, from which respondents could choose to undertake the questionnaire right away. Indeed, 73% of respondents completed the questionnaire after a total of three messages, which in most cases will have taken the form of “pre-notice > invitation > follow-up”. The fourth and fifth messages brought in successively fewer responses each round which is to be expected but suggests some respondents do respond to ‘nagging’.

Table 6 also provides the mean number of days between the final communication with each respondent and their completion of the questionnaire. The mean delay of almost a week could be partly related to the time needed for postal questionnaires to be returned, but likely also demonstrates how busy the target owner-managers can be. Despite this, 25% of responses were received on the day of the last communication, which were all via the online questionnaire. Generally, the longer return times, such as the longest at 57 days, were respondents who were sent a postal questionnaire and not sent any follow-up messages because they had no email address for such messages. Only 15% of responses took longer than 14 days to return. This demonstrates that multiple messages are required to boost a response rate, but after a total of three communications, there will be diminishing returns. It also demonstrates that an appropriately prolonged survey period will likely improve results as it allows even the busiest firms to participate when it suits them.

4.6 Unsolicited Comments Box

While not related to response rates, we found an additional area of interest in our questionnaire construction, which we believe to be of use for future researchers. The final question on the questionnaire was an open comments box, with the question stem of “is there anything else you would like to tell us about any of the issues raised in this survey?”. This allowed respondents an opportunity to comment on any aspect of the issues raised or the survey process itself. While the 197 comments were interesting in and of themselves, they were also put to use in our analysis of regulation in micro-firms. In lieu of wide-scale supplementary interview data, which could not be collected at the time, these comments were formally analysed using a constant-comparison thematic method, as defined by Krueger and Casey (2009). Using this technique, comments were coded relating to their content; these comments were compared with each other to limit duplication (thus, the constant-comparison). The codes were later compared again and grouped together to form themes, which were then used for interpretive analysis, with direct quotes included to provide illustrative examples of the themes. The resulting 10 themes were then included to provide a flavour of the sentiments of respondents and to suggest possible causation for the results of various statistical analyses. Such an approach is in keeping the various uses for such ‘final comments’ that have been explored in prior literature, as summarised by Cynthia and Matthias (2016). We therefore recommend that future researchers provide a means for respondents of closed-questionnaires (or even questionnaires with some open-questions) to comment freely. These remarks should then be analysed, not necessarily in lieu of interview data, but ideally to support it by, for instance, suggesting areas to investigate during in-depth interviews.

5. Limitations

This paper has a number of limitations in addition to the possible transient nature of our discoveries and the associated suggestions for possible ‘best practice’. To start, our insights derive not from a dedicated study with a primary focus on exploring different distribution methods, which would have used slightly different methods, but from detailed reflection of what we found when doing our primary study on micro-firms and regulation. This was made possible by recording detailed data on our questionnaire distribution practices and the associated responses secured. Had this been a dedicated methodological study entirely focussed on distribution methods, we undoubtedly would have undertaken the process slightly differently. Furthermore, this means the analysis herein is based on one single study and so there is no opportunity for direct comparison with similar studies. Nevertheless, there is still value in our findings given the paucity of methodological insight for researchers investigating micro-firms and trade-association endorsements.

A number of other limitations were also created due to our efforts to favour multiple survey entry points to ease access to the questionnaire (to enhance response rates), which is especially important when studying micro-firms (and why including non-essential questions such as “how did you find the survey” is not possible).
example, while we have explored the number of endorsements, we could not explore the effect of no endorsements or different combinations of endorsements, as this would have required multiple versions of communications and the website (which were not possible).

Similarly, every potential respondent was offered the opportunity to enter the prize draw. Exploring the impact of this would again have required more detailed tracking, multiple communications, and websites. This was not pursued due to resource limitations (requiring us to focus on our primary study) and the fact that there already exists a considerable literature on the impact of prize draws (although not on micro-firms in particular) (e.g. Cobanoglu and Cobanoglu, 2003; Dennis Jr, 2003; Alderson and Morrow, 2004; Gendall and Healey, 2008; Groves and Peytcheva, 2008; Snyder and Elliard, 2012). In detail, we opted to provide a prize draw of four Amazon vouchers with values ranging from £25 to £100. In order to qualify, respondents had to complete the entire questionnaire (or the relevant sections where some could be left incomplete) and explicitly demonstrate their wish to be considered for the prize by entering their contact details at the end of the questionnaire. A total of 339 respondents (out of 706 total responses received) were ultimately identified as being eligible for the draw. Only one respondent outright rejected the prize draw, using the unsolicited comments box to complain about the choice of Amazon vouchers (for personal reasons relating to Amazon’s policies). Similarly, a number of individuals did not complete the name box, thereby deliberately being ineligible for the draw. We therefore have no reason to suspect that incentivising via a prize draw had a detrimental impact on response rates and could well have had a positive impact.

6. Conclusions and Suggestions

The aim of this paper was to provide future researchers with greater insight in what did and did not affect response rates in our context of English accommodation micro-firms (and likely, micro-firms in other industries) and other wider lessons. We accept that there are a number of limitations, especially since this was a secondary part of our study, so we therefore present tentative suggestions for consideration. However, given the unusual micro-firm context, the novel inclusion of trade-association endorsement, and the use of the unsolicited comments box, there is still much to be learned from our efforts, especially given the dearth of literature in this area. We therefore hope that future researchers will not only seek to include these difficult-to-research firms in their own work, but that they will also enjoy greater success when doing so.

Table 7 presents a summary of the suggestions made following our review of our own survey experience. In addition, we recommend that future researchers include similar small reflective exercises in their own studies, as we have done, and report the results in some form. Such small-scale tests not only provide rich information which may be of use to other researchers, but they can also be used to further explore the data which has already been collected for a given study.

**Table 7: Suggestions following our study**

<table>
<thead>
<tr>
<th>Paper Section</th>
<th>Suggestions</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>While many researchers may feel a simple mailing list will suffice, a dedicated database of potential respondents allows for a greater level of detail and tracking. This offers a centralised hub for managing communications and provides the opportunity to investigate the data collection process, as we have done here. Additionally, by using participant codes, the database and dataset (of responses) can be stored independently, reducing the risk of data breach. We used Microsoft Access, but any similar database application would work.</td>
</tr>
<tr>
<td>3.4</td>
<td>A dedicated website for a study can perform a number of beneficial tasks. Firstly, it permits researchers to provide extra detail on the study, thereby allowing communications with prospective supporters and respondents to be more succinct. Secondly, it allows for the easy creation of branded (short) links for use by study partners. Finally, it acts as a central hub for a study, both at the data gathering stage and beyond, thereby demonstrating the impact of research and legitimising the researchers involved to potential respondents/endorsers.</td>
</tr>
<tr>
<td>4.1</td>
<td>Providing a hard copy questionnaire (even if the focus is an online questionnaire) and distributing it when requested, will likely be beneficial.</td>
</tr>
<tr>
<td>4.1</td>
<td>Given the monetary cost and time implications, future studies should not consider ‘online only’ as a significant handicap, especially given the higher response rate we found for that medium.</td>
</tr>
<tr>
<td>4.1</td>
<td>In addition to printing the address, freepost envelopes should also print “no stamp required” on the top right of the envelope, to reduce the number of respondents who add (often incorrect) postage stamps.</td>
</tr>
</tbody>
</table>
| 4.2           | Direct access to potential respondents (or members of trade-associations), even if through public sources, is of greater advantage for response rates than either trade-association endorsement (formal or
otherwise), or communications sent on behalf of the study. However, endorsement AND membership access likely yields the best response rate.

4.3 While useful for publicising a study, reliance on third-party publications (e.g. VisitEngland’s Quality Edge magazine) is unlikely to yield a high response rate. This follows our suggestion that direct access to potential respondents yields a higher response rate.

4.4 While it may not be true in all contexts and industries, we found that the response rate to messages (to potential respondents) is not influenced by the method (postal or email), type (invitation or follow-up), or time of year.

4.4 There is also no association between the number of trade-association endorsements and the response rate of a message (to potential respondents), further supporting our other results, that endorsement alone does not influence respondents towards completing a questionnaire.

4.5 Multiple messages are required to boost a response rate, but after a total of three communications, there will likely be diminishing returns. A prolonged survey period will likely improve results as it allows even the busiest firms to participate at a time that suits them best.

4.6 We suggest that future researchers provide a means for closed-questionnaire respondents to speak freely. These comments should then be analysed, not necessarily in lieu of interview data, but to support it and to suggest areas to investigate during in-depth interviews.

Acknowledgements

The authors would like to thank all of the survey respondents, and those who helped in the refinement and distribution of the survey, including: David Weston at the Bed and Breakfast Association; Andy Woodward at Farm Stay UK; Martin Couchman and Julia Svetlosakova at the British Hospitality Association; Sharron Orrell and Jane Darragh at VisitEngland; Gené Jeffrey at BedPosts; Jamie Hurst at The National Caravan Council; Gregory Yeoman at the Tourism Society; and Ros Pritchard at the British Holiday and Home Parks Association. The responsibility for the work, however, remains entirely with the authors.

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