



Survey Response Rates in Family Business Research

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Although family business survey research is growing in volume and publication in highly regarded management journals, we do not yet have evidence on the usual response rates in this research and on the factors that impact these response rates. This paper addresses these voids and finds that the average response rates of family business survey studies published in seven prominent outlets amount to 21%. We also find that the response rates have declined significantly over time and that the size of the survey population and the establishment of contacts with survey addressees before sending out questionnaires are significantly associated with response rates. Such precontacts and reminders seem less fruitful for family respondents than for non-family respondents.

Keywords: family business; family firm; survey; response rate

Introduction

Various reviews show that surveys are the most frequently applied data-gathering method in empirical family business studies (e.g., Bird *et al.*, 2002; Benavides-Velasco *et al.*, 2013; Evert *et al.*, 2016). At the same time, surveys addressing family firms may feature some specific challenges. For instance, Wilson *et al.* (2014) note that family members are typically reluctant to give detailed information about their firms. In addition, family business surveys are often intended for family members, such as owner-managers, as they are usually expected to be most knowledgeable about both business and family dynamics (Wilson *et al.*, 2014). However, from prior research, we know that surveying top executives such as owner-managers usually leads to lower response rates compared to surveying actors situated at lower levels of corporate hierarchies (e.g., Cycyota and Harrison, 2006; Anseel *et al.*, 2010; Hiebl and Richter, 2018). As a consequence of these specifics of family business surveys, Stamm and Lubinski (2011) assert that response rates are usually low in family business survey research. Low response rates can make it more difficult for a paper to be published in highly regarded business and management journals because they may indicate threats to the validity

and reliability of the findings extracted from the surveys. For instance, low response rates may indicate a coverage bias that occurs when important segments of the survey population are not adequately represented in the analyzed sample (Speklé and Widener, 2018). Another problem is non-response bias, which may be linked to low response rates when there are significant differences between the few members of the survey population who have answered the questionnaire and the more numerous members of the population who have not (Baruch and Holtom, 2008). These potential problems can help explain why response rates are an important criterion for evaluating the rigor of survey studies for many journal editors (Carley-Baxter *et al.*, 2009). In addition to these general problems associated with low response rates, highly regarded business and management journals may be accustomed to much higher response rates in studies that do not focus on family firms. That is, survey studies published in highly ranked management journals typically feature response rates between 40% and 60% (Baruch, 1999; Baruch and Holtom, 2008; Anseel *et al.*, 2010; Mellahi and Harris, 2016). To the best of our knowledge, there is currently no data about such average response rates for family business survey studies.

In addition, the factors that impact the response rates in family business survey research are not known, but may be different for surveys of family firms. As indicated above, such family business surveys are often targeted towards owner-managers. These owner-managers or

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family managers have been found to show idiosyncrasies in their behavior compared to non-owner managers (e.g., Armstrong and Hird, 2009; Woods and Joyce, 2016). For instance, Armstrong and Hird (2009) find that owner managers differ in their cognitive style from other people. Many response-rate-enhancing techniques, such as reminders or incentives, address phenomena of social psychology or social exchange (e.g., Roth and BeVier, 1998; Fan and Yan, 2010). That is, such techniques usually attempt to make use of frequently found cognitive traits of individuals to increase response rates. Given that owner-managers and family managers have been found to show different cognitive styles, we could theorize that typical response-rate-enhancing techniques may also work out differently in family business survey research, which further requires knowledge about how such techniques fare in family business survey research.

This paper aims to address these voids. More specifically, based on a review of survey studies published in journals often featuring family business studies, we aim to (1) identify the average response rates and response rate trends over time in family business survey research and (2) identify the factors that are associated with high response rates.

Our analysis of 126 family business survey studies contributes to the literature on response rates in management research (e.g., Baruch, 1999; Baruch and Holtom, 2008; Anseel *et al.*, 2010; Mellahi and Harris, 2016) in several ways. We add to this literature an analysis of response rate levels and factors associated with response rates for the specific and highly economically relevant case of family firms. Our findings show that the average response rate in family business research is lower than the figures reported for response rates in general management research. Our study also adds factors that are significantly associated with response rates in family business research. Among these, our findings reveal a factor that has so far not been considered in prior meta-analytic studies on response rates: whether the respondents belong to the controlling family or not. This family status of respondents also shows significant interactions with the response-enhancing techniques of reminders and incentives. Both types of response-enhancing techniques are associated with higher response rates in studies that did not address only members of controlling families. Thus, our results imply that the effect of reminders and precontacts on response rates seems to be contingent on the type of survey addressee. That is, our study complements prior meta-analytic work on response rates in management research (e.g., Baruch, 1999; Baruch and Holtom, 2008; Anseel *et al.*, 2010; Mellahi and Harris, 2016) by adding that respondents who belong to the firm's controlling family seem to be a specifically challenging and idiosyncratic population in regard to reaching high response rates. Consequently,

editors and reviewers from general-management journals may need to adapt their expectations on response rates when evaluating surveys on family firms – especially those targeting family respondents. In turn, family business scholars may benefit from considering our findings when designing their next survey studies. Therefore, in general, we hope that these results can give family business scholars and reviewers examining family business surveys some guidance in terms of what response rates to typically expect from family business survey studies. In addition, the factors correlated with high response rates may support family business researchers in achieving higher response rates when conducting their subsequent survey studies.

The remainder of this paper is structured as follows. In the next section, we review the existing literature on response rates, extract factors known to influence response rates and develop hypotheses on their application in family business research. Afterwards, we detail the methods applied to address our above research objectives. Afterwards, we present descriptive data on the response rates in family business survey research over time and a regression analysis on the factors associated with such response rates. In the final section, we discuss our results and present implications for future survey research on family firms.

Literature review and hypotheses

Response rates are seen as an important quality criterion of survey studies because higher response rates can strengthen the confidence in the representativeness and validity of data produced by survey studies (Mellahi and Harris, 2016). Conversely, low response rates can cause smaller data samples, decrease statistical power, limit the applicability of sophisticated statistical procedures (Rogelberg and Stanton, 2007) and raise doubts about the validity of the sample (The American Association for Public Opinion Research, 2016). That is, low response rates may represent or at least signal potential biases in survey research, such as non-response bias (Rogelberg and Luong, 1998).

These reasons may explain why there is continued interest in response rates and the factors affecting them. As part of this line of research, prior meta-analytical studies have identified various factors that may influence response rates in survey research (e.g., Roth and BeVier, 1998; Baruch, 1999; Edwards *et al.*, 2002; Cychota and Harrison, 2006; Baruch and Holtom, 2008; Anseel *et al.*, 2010; Chidlow *et al.*, 2015; Mellahi and Harris, 2016; Hiebl and Richter, 2018). Guidance on achieving high response rates is also offered in several books (e.g., Dillman *et al.*, 2014) and in publications by professional associations (e.g., The American Association for Public Opinion Research, 2016). All this work has, however,

not considered the above-noted potential specifics in regard to surveying family firms. Not least, this non-consideration of response rates in family business surveys may be problematic because family firms represent the majority of firms worldwide (IFERA, 2003), and thus, family firms are likely to be addressed in many surveys targeting profit-oriented organizations. We argue that a closer examination of factors driving response rates in family business research may therefore be of interest to many survey researchers who – at least in part – address family firms in their survey studies.

While no studies on response rates in family business survey research have been published to date, there are some studies on response rates in small firms (Dennis, 2003; Newby *et al.*, 2003; Bartholomew and Smith, 2006). These studies deliver many interesting insights, some of which are referenced later in this paper. They did, however, only draw on insights from isolated survey projects. Thus, unlike our meta-analytic study, they were not based on a large number of prior studies. Furthermore, such studies did not focus specifically on family firms but on small firms. Because small firms show several differences from family firms, the findings of these studies cannot be attributed to family firms (e.g., Carland *et al.*, 1984), which further warrants our present study.

In the pursuit of our above research objectives, we draw on prior methodological work (e.g., Dillman *et al.*, 2014; The American Association for Public Opinion Research, 2016) and meta-analytical studies on response rates. Such research has identified various factors that may influence response rates (e.g., Heberlein and Baumgartner, 1978; Fox *et al.*, 1988; Roth and BeVier, 1998; Baruch, 1999; Cook *et al.*, 2000; Edwards *et al.*, 2002; Frohlich, 2002; Cycyota and Harrison, 2006; Baruch and Holtom, 2008; Shih and Fan, 2008; Anseel *et al.*, 2010; Dillman *et al.*, 2014; Chidlow *et al.*, 2015; Mellahi and Harris, 2016; Hiebl and Richter, 2018;). From this literature, we extracted ten factors that were most commonly analyzed and that were partly found to affect the response rates in these studies. At the same time, these ten factors have been

shown to be accessible to meta-analytic studies such as ours (e.g., Baruch, 1999; Baruch and Holtom, 2008; Chidlow *et al.*, 2015; Mellahi and Harris, 2016). That is, we have focused on factors that can usually be extracted from published papers without further details. While details such as the length of questionnaires could have an effect on response rates (e.g., Yammarino *et al.*, 1991; Edwards *et al.*, 2002; Deutschens *et al.*, 2004), such details are usually not disclosed in published management research studies. In addition, recent evidence shows that authors of published surveys are often unable or unwilling to disclose such information, especially in the case of survey studies that have been published decades ago (Hiebl and Richter, 2018), which are also included in our study. Consequently, in this study, we draw primarily on data available from published family business survey studies.

Several of the ten factors potentially affecting response rates represent response-enhancing techniques suggested in the much referenced ‘tailored design method’ by Dillman *et al.* (2014), such as establishing contact with survey addressees before sending out questionnaires, sending out reminders and offering incentives to survey respondents. Below, we develop hypotheses on how these factors can be expected to affect response rates in family business survey research. In addition to these ten more widely applicable factors, we added two factors that are particularly important in family business survey research (i.e., factors 2.5 and 2.6 in Table 1). We then clustered these 12 factors into three groups: (1) survey process characteristics; (2) survey population characteristics; and (3) bibliographic characteristics. See Table 1 for an overview of these factors.

Survey process characteristics

As indicated above, methodological work on response rates such as the book by Dillman *et al.* (2014) suggests that contacting survey respondents before actually sending out questionnaires can create a buy-in of the

Table 1 Factors potentially affecting the response rate in family business survey research

Groups of factors	Factors potentially influencing the response rate	Hypothesized direct effect on response rates in family business survey research
1. Survey process characteristics	1.1 Precontact	+
	1.2 Electronic survey techniques	–
	1.3 Reminder	+
	1.4 Incentives	None
2. Survey population characteristics	2.1 Surveys in North America	None
	2.2 Higher hierarchical level	–
	2.3 Survey population size	–
	2.4 Random sampling	+
	2.5 Family respondents	–
	2.6 Firm size	+
3. Bibliographic characteristics	3.1 Published in ETP or JBV	+
	3.2 Publication year	–

survey respondents in the relevance and necessity of the survey and thus increase response rates. In line with this notion, several studies have found that such precontacts (e.g., by phone, mail or email) are associated with higher response rates (e.g., Fox *et al.*, 1988; Roth and BeVier, 1998; Edwards *et al.*, 2002; Chidlow *et al.*, 2015). As we see no conceptual reasons why precontacts in family business survey research should generally not work in favor of response rates, we posit the following:

Hypothesis 1 (H1). Precontacts have a positive effect on response rates in family business survey research.

There is evidence that in recent years, research surveys in the social sciences have increasingly drawn on electronic techniques such as e-mail-based or browser-based surveys (Buchanan and Hvizdak, 2009; Hiebl and Richter, 2018). Such electronic survey techniques entail advantages such as being more cost efficient – for instance, due to avoiding postal charges (Keusch, 2015; Shannon and Bradshaw, 2002). At the same time, electronic survey techniques also feature some specific challenges, such as technical issues in disseminating, opening and responding to questionnaires (Toepoel *et al.*, 2009; Anseel *et al.*, 2010; Foster Thompson and Surface, 2016). Potentially, due to such challenges, some meta-analytic studies find that surveys using electronic techniques feature lower response rates (e.g., Manfreda *et al.*, 2008; Shih and Fan, 2008). While more recent studies indicate that response behavior between electronic and non-electronic surveys no longer differs significantly (e.g., Saunders, 2012; Newberry and Israel, 2017), we expect that in our sample of family business survey research over the past few decades, electronic survey techniques have had a detrimental effect on response rates in family business research:

Hypothesis 2 (H2). Electronic survey techniques have a negative effect on response rates in family business survey research.

The methods literature suggests that reminders are a very efficient technique for increasing response rates (e.g., Dillman *et al.*, 2014). Some meta-analytic studies (e.g., Fox *et al.*, 1988; Roth and BeVier, 1998; Edwards *et al.*, 2002; Shih and Fan, 2008) confirm this assumption, while others find that studies with high response rates did not rely on reminders (e.g., Baruch and Holtom, 2008; Mellahi and Harris, 2016). Because reminders cannot decrease but can only increase response rates, we also expect that studies having used reminders will feature higher response rates. Thus,

Hypothesis 3 (H3). Reminders have a positive effect on response rates in family business survey research.

Similar to reminders, the usage of monetary and non-monetary incentives is a technique that is often recommended to enhance response rates (e.g., Dillman *et al.*, 2014). Monetary incentives include cash payments to respondents, while non-monetary incentives include donations to charities or lotteries (Edwards *et al.*, 2002). Some prior meta-analytic studies show positive associations between incentives and response rates (e.g., Heberlein and Baumgartner, 1978; Edwards *et al.*, 2002). Others find no or even negative associations (e.g., Cook *et al.*, 2000; Shih and Fan, 2008; Chidlow *et al.*, 2015; Mellahi and Harris, 2016). The positive effect of incentives can be explained by increasing the survey addressees' willingness to participate in the surveys due to the promised incentives (Dillman *et al.*, 2014), while the negative effects of incentives on response rates may be due to the notion that incentives could undermine survey addressees' intrinsic or social motivations to participate in the survey and thus lead to non-response (Sauermann and Roach, 2013). This ambiguity warrants an analysis of the effect of incentives in the specific field of family business research, but given the largely mixed effects of incentives, we expect that the positive and negative effects will level each other out. Thus,

Hypothesis 4 (H4). Incentives have no effect on response rates in family business survey research.

Survey population characteristics

Prior meta-analytic evidence on the response rates in highly ranked management (Baruch, 1999; Mellahi and Harris, 2016) and accounting (Hiebl and Richter, 2018) journals suggests that the response rates differ by the region where the surveys were conducted. However, the evidence is inconclusive. For instance, while Baruch (1999) finds that surveys conducted in North America feature higher response rates, Hiebl and Richter (2018) find the opposite. Given this mixed evidence, we hypothesize that response rates in North American family business research studies do not differ significantly from those achieved in other regions:

Hypothesis 5 (H5). Response rates achieved in family business research surveys conducted in North America do not significantly differ from response rates reached in other regions.

Survey data collected from executives are an important source of evidence for management-related research fields, but they come with specific challenges. For instance, executives are often especially time starved and are therefore more selective in responding to surveys than employees at lower hierarchical levels (Cycyota and

Harrison, 2002, 2006). In line with this notion, prior meta-analytic evidence shows that surveys relying on respondents from the top of organizational hierarchies achieve, on average, lower response rates (e.g., Baruch, 1999; Anseel *et al.*, 2010). In turn, we can expect higher response rates from studies focused on respondents from lower hierarchical levels. Thus,

Hypothesis 6 (H6). Family business research surveys addressing respondents situated at higher hierarchical levels reach lower response rates than surveys targeting respondents situated at lower hierarchical levels.

Not only the position of survey addressees but also their overall number, that is, the survey population size, may influence response rates. Larger survey population sizes may be associated with fewer resources available for gathering responses from individual members of the survey population. This aspect may be associated with fewer activities performed to attract the individual survey addressees, resulting in lower response rates. In line with this argument, in their study on response rates in accounting survey research, Hiebl and Richter (2018) found a negative association between the survey population size and response rates, which is why we also include this factor in our analyses:

Hypothesis 7 (H7). Larger survey population sizes have a negative effect on response rates in family business survey research.

The survey population that is addressed in any particular survey can be constructed by different sampling approaches. For instance, we can distinguish surveys where the addressees are selected randomly from a certain population (i.e., random sampling) from surveys where the addressees are not selected randomly (i.e., non-probability sampling; Landers and Behrend, 2015). Response rates are regularly considered to be more important to studies relying on random sampling because statistical generalization is often the aim of such studies (Speklé and Widener, 2018). High response rates are regularly interpreted as better enabling such generalization from survey studies than lower response rates (van der Stede *et al.*, 2005). In turn, response rates are often considered less important in studies testing theoretical propositions but not aiming at results that necessarily enable generalizations to the underlying population of interest (Speklé and Widener, 2018). For this reason, we expect that in family business research, scholars place higher emphasis on and invest more resources in achieving higher response rates when following a random sampling approach:

Hypothesis 8 (H8). Random sampling has a positive effect on response rates in family business survey research.

Surveys in family business research are often directed to family firms' top managers (Wilson *et al.*, 2014). In family business research, it has been found that the inclusion of non-family actors in the management team often leads to family firm behaviors that differ from behaviors in family firms purely equipped with top management team members that belong to the controlling family (Klein and Bell, 2007; Hiebl and Li, 2018; Tabor *et al.*, 2018). Based on these general observations, we expect that the family or non-family status of respondents will also have an effect on response rates in family business survey studies. In particular, we expect lower response rates for surveys including family respondents because family members are portrayed as often being very secretive in regard to disclosing data about their firms (Stamm and Lubinski, 2011; Wilson *et al.*, 2014), whereas non-family respondents may be more accustomed to disclosing information about their employer firms based on earlier career experience in non-family firms and are not as committed to family-related goals, such as secretiveness (cf. Tabor *et al.*, 2018). Consequently, we posit the following:

Hypothesis 9a (H9a). Response rates are lower for family business research surveys including family respondents than for surveys addressing only non-family respondents.

In addition to this direct impact of family respondents on response rates, we also expect that the status as a family or non-family respondent interacts with the four survey process characteristics investigated in this study: precontacts, electronic survey techniques, incentives and reminders. Drawing on Anseel *et al.*'s (2010) finding that the effectiveness of response-enhancing techniques is dependent on the type of respondent, we expect that family respondents may react differently to response-enhancing techniques than non-family respondents. That is, given the alleged secretiveness of family members in family firms (Stamm and Lubinski, 2011; Wilson *et al.*, 2014), we expect that the abovementioned survey process characteristics are less effective for family respondents than for non-family respondents. Thus,

Hypothesis 9b (H9b). Response-enhancing techniques such as precontacts, electronic survey techniques, incentives and reminders are less effective in reaching high response rates for family business research surveys addressing family respondents than for surveys addressing only non-family respondents.

Many aspects of family firms vary with firm size. There is evidence that larger family firms tend to resemble non-family firms in applying techniques that are considered part of 'professional management'; thus, larger family firms may be considered to have lost some family business-specific characteristics. For instance, similar to non-family firms, larger family firms make greater use of formal employee training programs (Kotey and Folker, 2007) and formal performance measurement techniques (Speckbacher and Wentges, 2012) and employ more non-family managers (Hiebl and Li, 2018; Tabor *et al.*, 2018). Consequently, we could expect that with growing firm size, family firms may lose some of their secretiveness in regard to responding to surveys (Stamm and Lubinski, 2011; Wilson *et al.*, 2014). In line with this notion, there is some evidence in small business research that the response rates are positively associated with the size of the surveyed firms (Kleinknecht, 1989). That is, there is evidence that managers and owners of smaller firms are particularly reluctant to participate in survey studies (Dennis, 2003; Bartholomew and Smith, 2006). We thus hypothesize the following:

Hypothesis 10 (H10). Surveying larger firms has a positive effect on response rates in family business survey research.

Bibliographic characteristics

We now turn to two bibliographic characteristics that cannot necessarily be interpreted as antecedents of response rates but as factors associated with response rates. For this reason, we include them in our analyses, but we need to keep in mind that unlike the other factors, the two bibliographic factors are not fully in the hands of family business researchers when designing or conducting their survey studies.

The first of these two bibliographic characteristics relates to the publication outlet of the survey studies. Note that this factor, in particular, cannot be considered an antecedent of response rates because the submission of a survey study to a publication outlet usually occurs *after* the survey has been conducted and, thus, after the response rate has been determined. Nevertheless, to control for potential differences in response rates depending on the outlet where family business survey studies are published, we include this factor in our analysis. Two out of the seven journals on which we rely in this paper – *Entrepreneurship Theory and Practice* (ETP) and the *Journal of Business Venturing* (JBV) – are consistently considered to be among the very top journals in entrepreneurship (e.g., Pearce, 2012) and family business research (Chrisman *et al.*, 2008). For instance, different from the other journals analyzed in

our study, ETP and JBV are included in the *Financial Times* Top 50 Journals list, and they carry a grade 4 ranking in the latest edition of the Academic Journal Guide published by the Chartered Association of Business Schools in 2018. ETP and JBV receive a high number of submissions and feature a review process that results in comparatively low acceptance rates (Pearce, 2012). The rigorous review process of ETP and JBV may also be reflected in the response rates of the survey studies published in these two journals. That is, given that high response rates can be considered a quality criterion of survey studies (e.g., Cook *et al.*, 2000; Manfreda *et al.*, 2008), ETP and JBV may select only survey studies of the highest quality for publication and thus expect to see higher response rates than the other journals covered in our study. Thus,

Hypothesis 11 (H11). Family business survey studies published in ETP and JBV show higher response rates than studies published in other journals.

Several authors have lamented that in more recent years, surveys in business-related research fields have suffered from lower response rates (e.g., Baruch, 1999; van der Stede *et al.*, 2005; Cycyota and Harrison, 2006; Chidlow *et al.*, 2015). The main reason for this phenomenon could be 'oversurveying'; that is, executives and other survey addressees receive increasingly more survey invitations and, consequently, have become more selective in responding to such invitations (Rogelberg and Stanton, 2007). This phenomenon could especially apply to family business research because the research activity around family firms has increased greatly over the last few decades (Bird *et al.*, 2002; Sharma *et al.*, 2017). It can be expected that family firms have also become increasingly oversurveyed and that the response rates in family business survey studies may have also thus declined. We posit the following:

Hypothesis 12a (H12a). Response rates in family business survey research have declined over time.

We expect, however, that most family business survey researchers are well aware of the fact that in recent years, high response rates are more difficult to achieve and that it is now the norm to receive lower response rates than those a few decades ago. Not least, this expectation is rooted in the fact that meta-analytic studies on response rates in survey-based management research have indicated a downturn in response rates 20 years ago (e.g., Baruch, 1999). Consequently, we expect that family business survey researchers are trying to counter declining response rates with measures that allow them to achieve meaningful sample sizes despite lower response rates. Such meaningful sample sizes are necessary because

many statistical procedures require a minimum sample size (Speklé and Widener, 2018). In addition, recent family business studies have increasingly drawn upon sophisticated statistical methods, which often come with the need for larger sample sizes (Wilson *et al.*, 2014). A premier measure to increase sample sizes when facing lower response rates is addressing more people – that is, increasing the survey population size (cf. Hiebl and Richter, 2018). For instance, if a survey researcher wants to have a sample size of 200, he could achieve this with a survey population size of 500 and a response rate of 40%. If such a high response rate is not realistic and the researcher rather expects to achieve a 20% response rate, all else being equal, the researcher would need to double the survey population size to 1,000. Given this interaction effect of survey population sizes and response rates on sample sizes, we expect that in more recent years, family business survey researchers have addressed larger survey populations to achieve meaningful sample sizes despite decreasing response rates. Thus,

Hypothesis 12b (H12b). In more recent years, family business survey studies have drawn on larger survey population sizes to achieve high response rates. That is, there will be an interaction effect between survey population size and the year of publication in explaining response rates in family business survey research.

Methods

Sampling and data collection

To examine the response rates in family business survey research, we draw on survey studies published in ETP, JBV, *European Management Review* (EMR), *Family Business Review* (FBR), the *Journal of Family Business Management* (JFBM), the *Journal of Family Business Strategy* (JFBS) and the *Journal of Small Business Management* (JSBM). Four of these journals – ETP, FBR, JBV and JSBM – have long been considered core outlets for family business research and have also been drawn upon in review papers adopting sampling approaches similar to ours (e.g., Bird *et al.*, 2002; Steiger *et al.*, 2015). In addition, we have also included the younger journals JFBM and JFBS because they focus exclusively on family business research, have already gained decent scholarly recognition and frequently publish survey research (Astrachan and Pieper, 2013; Wilson *et al.*, 2014). In addition to these journals with a traditional focus on family firms, we have also included the publication outlet for this study in our search—the EMR.

We have analyzed all research articles published in these seven journals between 1988 and 2017 for potential inclusion in our study. We have chosen 1988 as the first year for our time frame because this year marks the introduction of FBR and can thus be viewed as an important year for the establishment of the distinct field of family business research (cf. Bird *et al.*, 2002). We searched for all research studies that were based on a combination of questionnaires and quantitative analyses and that were concerned with family firms. For articles published in FBR, JFBM and JFBS, we assumed that all were focused on family firms because these journals exclusively publish family business research. For EMR, ETP, JBV and JSBM, we included only articles that showed clear links to family business research. That is, such articles had to declare a focus on family businesses in their titles, abstracts and/or author-provided keywords and had to include family firms in their empirical analyses. The identification of such studies was somewhat impeded by the non-existence of a universally accepted definition of family businesses in the literature (Chua *et al.*, 1999; Steiger *et al.*, 2015). However, most of the available family business definitions agree that family businesses are characterized by a *high degree of family involvement* (Chua *et al.*, 1999; Sharma, 2004). Consequently, and in line with some other recent family business studies (e.g., Landry *et al.*, 2013; Hiebl and Li, 2018), we used this overall criterion to identify family business studies in the four journals not exclusively devoted to family firms. We also needed a common understanding of what defines survey studies. From the meta-analytic studies on response rates that disclose their underlying definition of survey studies, we distilled two factors that characterize a survey study: (1) the study is based on a questionnaire (Baruch, 1999; Baruch and Holtom, 2008); and (2) the data gathered through the questionnaire are analyzed in a quantitative fashion (Hiebl and Richter, 2018). We used these two criteria for the identification of survey studies in the seven journals mentioned above. Following these inclusion criteria, we identified 232 articles for further examination.

In line with other meta-analytical studies on response rates (e.g., van der Stede *et al.*, 2005; Baruch and Holtom, 2008; Hiebl and Richter, 2018), we excluded a series of articles (in total, 106) from further analyses. Table 2 provides an overview of these exclusions and our reasoning as to why these exclusions were necessary. After these exclusions, our final sample consisted of 126 articles (see the Appendix for a list). The distribution of these 126 articles across journals is as follows: FBR 71, JFBM 5, JFBS 20, ETP 9, JBV 5 and JSBM 16. In EMR, we could not detect a family business survey study. Table 3 presents an overview of the temporal distribution of the articles included in our sample.

Table 2 Exclusion criteria

No.	Exclusion criterion	Reasons	Number of excluded papers
1	Third-party surveys	Third-party surveys involve data collected by institutions (e.g., consulting firms, government agencies) on a particular topic from a pre-selected survey pool (Moers, 2007). Since such surveys are often practice oriented and rely on simpler construct measurements, they can hardly be compared to research-oriented survey studies (Bouwens and van Lent, 2006). Consequently, the response rates achieved in third-party surveys seem hardly comparable to research studies, which warrants their exclusion from our sample.	42
2	Longitudinal/panel studies	In longitudinal/panel studies, repeated observations of the same constructs over several points in time are considered (Ployhart and Vandenberg, 2010). Due to such repeated measurements, longitudinal studies feature specific challenges and dynamics that make high response rates in such studies difficult to achieve and therefore hardly comparable to other survey studies (Hiebl and Richter, 2018).	10
3	Student samples	In studies relying on student samples, questionnaires are often completed by students during lectures. Thus, these studies cannot be compared to other studies in terms of response behavior.	4
4	Studies with missing information for our analyses	Some articles did not contain the information needed to construct all the variables discussed below. That is, we retained papers in our sample only where we had full information on our chosen variables. Since many of our variables feature a dichotomous scale level, the imputation of missing data (cf. Horton <i>et al.</i> , 2003) or basing our regression analyses on pairwise deletion (cf. Hiebl and Richter, 2018) would not have been reliable strategies. Our approach is similar to those of other meta-analytic studies of response rates that have retained in their analysis only studies with full information on the variables of interest (e.g., Mellahi and Harris, 2016). In the case of our regression analyses below, this approach is similar to a listwise deletion of missing items (cf. Hiebl and Richter, 2018).	35
5	Survey studies drawing on datasets already previously used in other studies included in our sample	These studies draw on datasets that were already used in other studies in our sample. These exclusions were meant to avoid the multiple inclusion of one and the same underlying survey in our analyses.	15
Total number of exclusions			106

Table 3 Distribution of family business survey studies in our sample across journals and time intervals

Period	FBR	JFBM	JFBS	ETP	JBV	JSBM	EMR	Total
1988–1990	2							2
1991–1993	5							5
1994–1996	8							8
1997–1999	8			1	1	1		11
2000–2002	6			1	1			8
2003–2005	10				2	1		13
2006–2008	10			3	1	3		17
2009–2011	9			1				10
2012–2014	7	3	12	2		2		26
2015–2017	6	2	8	1		9		26
Total	71	5	20	9	5	16	0	126

In the 1988–2008 period, the number of articles using the survey method increased somewhat steadily (see Table 3). While the years 2009 to 2011 observed fewer survey studies, the total number of survey studies in our sample increased again from 2012 to 2017. This uptick in survey studies can mostly be traced back to the launch of two new family business-specific journals, JFBM and JFBS, which contributed a total of 25 studies from 2012

to 2017, translating into a 48% share of all survey studies included in our sample for this period.

The coding of 12 factors included in our analyses and the response rate resulted in a total of 1,638 codings. These codings were initially prepared by the first author of this paper and were verified by the second author. The vast majority of the codings could be generated by analyzing the information included in the 126 published articles included in our sample. In cases where information was missing or unclear, we first discussed these ambiguities, and in cases where they persisted, we contacted the authors of the published papers and asked them to provide us with the missing information or for clarification.

Measures

Response rate. In line with prior meta-analytic studies in business and management disciplines (e.g., Baruch, 1999; Frohlich, 2002; Baruch and Holtom, 2008), we define the *Response Rate* as the share of usable questionnaires in the population addressed. Consequently,

the *Response Rate* features a metric scale. In cases where the analyzed articles did not disclose the *Response Rate* or calculated it differently, we (re-)calculated the *Response Rate*, as defined above. In cases where we did not have sufficient information to calculate the *Response Rate* at all (even after contacting the survey authors), the respective study was excluded from our sample, as explained in Table 2.

Precontact. This variable indicates whether the survey authors had already been in contact (e.g., by phone, mail or email) with the survey population before the actual questionnaires were sent out. Our *Precontact* variable is dichotomously scaled. It assumes the value of 1 (yes) if any form of precontact was made, and 0 otherwise.

Electronic survey techniques. This variable measures whether the underlying survey involved electronic survey techniques, that is, whether the survey questionnaire could be answered via email and/or web sites. Our variable *Electronic Survey Techniques* has a dichotomous scale level. The variable assumes a value of 1 (yes) if the survey authors have used only electronic survey techniques and 0 (no) if the survey authors exclusively used non-electronic techniques or if they have used both electronic survey techniques and non-electronic survey techniques. We acknowledge that we could have differentiated between three categories for this variable: (1) only electronic survey techniques; (2) both electronic and non-electronic survey techniques; and (3) only non-electronic survey techniques. We also attempted this more fine-grained coding, but our significant results presented below remained the same. However, we aimed to save space and to avoid decreasing the statistical power of our regression analysis due to the larger number of independent variables at a given sample size of survey studies included in our analysis (cf. Cohen, 1988; Khamis and Kepler, 2010). Such a larger number of independent variables and thus issues with statistical power would have resulted from a more fine-grained measurement of variables such as *Electronic Survey Techniques*. Thus, for this variable and others (see below), we report a less fine-grained measurement here.

Reminder. To test the effect of reminders for family business survey research, we include the dichotomous variable *Reminder*. This variable indicates whether the authors sent at least one reminder message (regardless of whether by mail, email, phone or other media) after the first wave of questionnaires had been sent. The variable takes the value of 1 (yes) if the authors have used a reminder and takes the value of 0 (no) if no reminder was sent.

Incentives. We include the dichotomous variable *Incentives* in our analyses. This variable takes the value of 1 (yes) if any kind of incentive (i.e., monetary, non-monetary or mixed) was offered to survey addressees and otherwise 0 (no).

Surveys in North America. We coded a study as 1 (yes) if the surveys were conducted exclusively in North America and as 0 (no) if the respective surveys included data from outside of North America. Similar to *Electronic Survey Techniques*, at least three categories for this variable could be determined (i.e., (1) surveys in North America, (2) surveys including data from North America and other regions, and (3) surveys outside of North America). We have tested this more fine-grained measurement; however, it does not lead to different results. Consequently, we retain this less detailed measurement where (2) and (3) are both coded as 0.

Higher hierarchical level. If the respondents came exclusively from higher hierarchical levels, such as top management, then we coded the dichotomous variable *Higher Hierarchical Level* as 1 (yes). If the respondents came from mixed or middle/lower management levels, then we coded this variable as 0 (no). Similar to *Electronic Survey Techniques* and *Surveys in North America*, we could have developed at least three categories for this variable. Because the significant results remain unchanged in the case of a more fine-grained categorization of hierarchical levels, we retain this simpler measurement.

Survey population size. The survey population features a metrical scale level and represents the total number of addressed members of the survey population.

Random sampling. In line with prior meta-analytic studies (e.g., Derfuss, 2016), we coded all studies clearly stating that they relied on random sampling techniques with a value of 1 (yes) for this variable and otherwise 0 (no).

Family respondents. Our variable *Family Respondents* features a dichotomous scale level and is a specific characteristic in survey research on family firms. We coded this variable as 1 (yes) if the survey included only family respondents. If the surveys relied only on non-family respondents such as non-family managers or both family respondents and non-family respondents, we coded this variable as 0 (no). Again, we could have created at least three categories for this variable. For *Family Respondents*, we also tested a more fine-grained measurement, but it did not materially alter our results. Consequently, we also retained the simpler dichotomous measurement for this variable.

Firm size. As is typical in family business research (e.g., De Massis *et al.*, 2018; Ge *et al.*, 2019), we draw on the number of employees to measure *Firm Size*. In line with prior meta-analytic studies (e.g., Rauch and Hatak, 2016; Brinckmann *et al.*, 2019), we draw on the threshold of 500 employees to define small firms. That is, our variable *Firm Size* takes the value of 1 (yes) if all firms included in a survey had a maximum of 500 employees. The variable assumes the value 0 (no) if the firms included in the survey had more than 500 employees or if the survey relied on a mixed sample that included both small and large firms. For our *Firm Size* variable, we could also have created at least three categories. We tested a more fine-grained measurement of *Firm Size*, which did not change our significant results. Consequently, we also retained the simpler dichotomous measurement for this variable. We also tested whether operationalizing firm size with a maximum of 250 employees would change our significant results. This was not the case, and in the below measurement of *Firm Size*, we draw on the 500-employee threshold to distinguish small firms from large firms.¹

Published in ETP or JBV. We constructed a dichotomous variable that is coded as 1 (yes) for all papers published in ETP and JBV. This variable is coded as 0 (no) for survey studies published in EMR, FBR, JSBM, JFBM, and JFBS.

Publication year. This variable is metrically scaled and indicates the year in which the respective article was published in print. We acknowledge that there are time lags between the actual survey and the publication of the survey results. However, the actual years when the respective surveys were conducted are not disclosed in the vast majority of analyzed papers. Consequently, similar to other meta-analytic studies on response rates (e.g., Baruch, 1999; Chidlow *et al.*, 2015; Shih and Fan, 2008), we draw on the variable Publication Year as a proxy for the time effects in response rate developments.

Results

Descriptive results and correlations

Table 4 reports descriptive results of our variables, and Table 5 reports the correlations and associations between the endogenous variable (response rate) and all 12 exogenous variables. Due to different scale levels of our variables, different measures of associations between

¹The threshold of 500 employees for demarcating small from large enterprises is typical for North America, but less so for other regions of the world (Ang and Cardozo, 1993) such as Europe, where the threshold set by the European Commission (2003) for delineating large firms from small and medium-sized firms is 250 employees. Since most of the seven journals we searched for family business survey studies are US-based, we opted for the threshold of 500 employees.

variables were used (see the notes in Table 5). Some variables feature significant associations with each other. However, none of these associations lies within the critical range of 0.6–0.8, which could point to multicollinearity issues (Tabachnick and Fidell, 2007; Dormann *et al.*, 2013). Thus, from the correlation matrix, we have no indications of multicollinearity issues in our data.

Table 6 shows that the overall average response rate in the analyzed survey studies is approximately 21%, the overall average number of usable responses is 322, and the overall average survey population size is 2,408. The descriptive data in Table 6 hint that the response rates in family business survey research have declined over time: while the highest average response rates can be observed in earlier time intervals, such as 1988–1993 and 2000–2002, the lowest average response rates can be found in more recent time intervals, such as 2009–2011 and 2015–2017. Table 6 also indicates that family business survey researchers have addressed ever-growing survey populations, potentially as a response to the difficulties in reaching high response rates: while in the earlier years covered in our analyses, the average survey population size remained well below 1,000, in the new millennium, this number averaged almost consistently above 2,000. In turn, while the number of usable responses increased in the earlier years in our analyses, it remained broadly constant from 2006 on and hovered at approximately 300. That is, our data suggest that the average survey study in family business research published in 2006 or later relies on approximately 300 observations.

Table 7 illustrates a split of our sample into the world regions where the surveys were conducted. It shows that only a small number (12) of studies included in our sample were conducted outside of North America and Europe. The descriptives also suggest that, on average, the response rates are higher in North America than in Europe.

Multiple regression analyses

Table 8 reports two multiple regression models. Model A includes all direct effects of the above variables on the response rate. Model B adds the four interaction effects between the survey process characteristics and our *Family Respondents* variable as well as the interaction effect between the *Survey Population Size* and *Year of Publication*. The *F* statistics indicate that both models are significant at $p < 0.01$ and both models show no indications of missing statistical power or overfitting: following Khamis and Kepler (2010), our sample size of 126 allows for a maximum of 21 independent variables to deliver reliable results. Model A includes 12 independent variables, while Model B includes 17 independent variables. Both models are thus well below this threshold and do not show indications of unreliable

Table 4 Descriptives

Variable	Categories	Frequencies		Valid cases		
		Absolute	Relative (%)			
Precontact	0 = no precontact established	109	86.51	126		
	1 = precontact established	17	13.49			
Electronic survey techniques	0 = non-electronic techniques used either standalone or besides electronic techniques	116	92.06	126		
	1 = only electronic techniques used	10	7.94			
Reminder	0 = no reminder used	98	77.78	126		
	1 = reminder used	28	22.22			
Incentives	0 = no incentives used	123	97.62	126		
	1 = incentives used	3	2.38			
Surveys in North America	0 = survey data included data from outside of North America	73	57.94	126		
	1 = only survey data from North America included	53	42.06			
Higher hierarchical level	0 = respondents from middle/ lower management levels included in analyses	22	17.46	126		
	1 = only respondents from higher hierarchical levels	104	82.54			
Random sampling	0 = no random sampling techniques used	84	66.67	126		
	1 = random sampling techniques used	42	33.33			
Family respondents	0 = answers from non-family respondents included in analyses	104	82.54	126		
	1 = only answers from family respondents included in analyses	22	17.46			
Firm size	0 = firms with more than 500 employees (i.e., large firms) included in analyses	85	67.46	126		
	1 = only firms with up to 500 employees (i.e., small firms) included in analyses	41	32.54			
Published in ETP or JBV	0 = papers published in EMR, FBR, JSBM, JFBM or JFBS	112	88.89	126		
	1 = papers published in ETP or JBV	14	11.11			
Variable	Minimum	Maximum	Mean	Median	Standard deviation	Valid cases
Response rate	.01	.64	.21	.19	.13	126
Survey population size	68	24,000	2,408	1,136	3,363	126
Publication year	1988	2017	2007	2008	7.67	126

results that may lack statistical power (Khamis and Kepler, 2010). To further analyze potential multicollinearity issues, we report the *variance inflation factors (VIFs)* for both models. While there are several recommendations on *VIFs* in the literature, many authors agree that *VIFs* above 10 indicate multicollinearity (e.g., Dormann *et al.*, 2013; Hair *et al.*, 2014). Because the *VIFs* in our two models are well below 3, they do not point to multicollinearity issues.

The results on the direct effects examined in Model A suggest that only three factors are significantly associated with the *Response Rate*: we find that a larger *Survey Population Size* and a later *Publication Year* are both

negatively related to the *Response Rate*, while *Precontact* is positively related to the *Response Rate*. These results confirm our hypotheses H1, H7 and H12a. These three factors are also confirmed by Model B, which adds the five interaction effects to the regression analysis. Model B suggests that addressing only *Family Respondents* is related to higher response rates and confirms our hypothesis H9a. In addition, from Model B, the three interaction terms *Precontact X Family Respondents*, *Reminder X Family Respondents* and *Survey Population Size X Publication Year* also emerge as being significantly associated with the *Response Rate*, supporting our hypothesis H9b and H12b. However, hypothesis H9a

Table 5 Correlation matrix

Variables	N	1	2	3	4	5	6	7	8	9	10	11	12	13
1 Response rate	126	1												
2 Survey population size	126	-.408	1											
3 Publication year	126	-.217	.151	1										
4 Surveys in North America	126	.080	-.191	-.506	1									
5 Higher hierarchical level	126	-.120	.176	-.004	.053	1								
6 Precontact	126	.179	-.181	.035	.087	-.002	1							
7 Incentives	126	.026	-.090	.016	-.028	-.065	.395	1						
8 Electronic survey techniques	126	.019	-.037	.261	-.072	-.252	.056	-.046	1					
9 Reminder	126	-.045	.074	-.014	.009	-.006	.012	.042	.126	1				
10 Family respondents	126	.086	-.110	-.012	.116	.156	.063	.065	.252	.006	1			
11 Firm size	126	.026	-.034	.048	-.111	-.082	.073	.003	-.016	-.127	.127	1		
12 Random sampling	126	-.059	.143	-.095	.011	.237	-.033	.000	-.145	.148	.251	.156	1	
13 Published in ETP or JBV	126	.036	.072	-.069	.210	.030	.082	.110	-.010	.054	.170	.024	.179	1

Correlations significant at $p \leq .05$ are indicated in bold; *Point-biserial* correlation coefficients are used for correlations between metric and dichotomous variables; *Phi* values are used for associations between dichotomous variables; *Pearson* correlation coefficients are used for correlations between metric variables.

Table 6 Development of the response rate, usable responses and survey population size over time

Period	Average response rate (%)	Average usable responses	Average survey population size
1988–1990	29.66	103	343
1991–1993	28.12	186	662
1994–1996	18.34	97	610
1997–1999	24.02	222	1,323
2000–2002	30.56	1051	4,669
2003–2005	20.67	421	2,942
2006–2008	24.09	326	2,497
2009–2011	13.54	298	2,564
2012–2014	21.66	265	1,794
2015–2017	15.89	268	3,446
Total	20.99	322	2,408

Table 7 Number of articles and response rates per region

Region	Number of articles (%)	Average response rate (%)
Africa	2 (1.59)	28.49
Asia	7 (5.56)	22.01
Australia and New Zealand	3 (2.38)	27.04
Europe	60 (47.62)	23.18
North America	54 (42.86)	28.49

receives only partial support from these results because only two of the four process characteristics (i.e., *Precontact*, *Reminder*) appear to significantly interact with *Family Respondents* to explain the *Response Rate*, while the other two (i.e., *Electronic Survey Techniques*, *Incentives*) do not.

In turn, our expectations on the positive associations of *Reminder* (H3), *Random Sampling* (H8), *Firm Size* (H10) and *Published in ETP or JBV* (H11) with the *Response Rate* could not be confirmed. Additionally, our expectations on the negative effect of *Electronic Survey Techniques* (H2) and *Higher Hierarchical Level* (H6) on

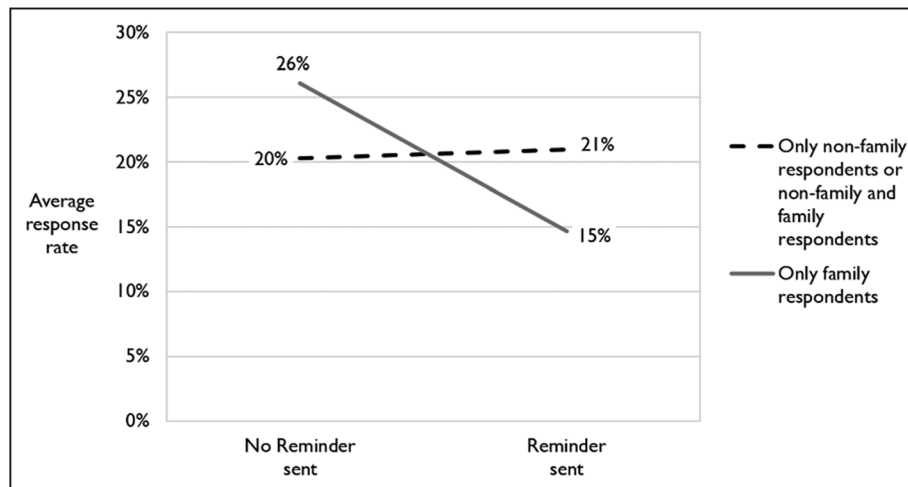
the *Response Rate* could not be confirmed. However, hypotheses H4 and H5, which suggested no effect of *Incentives* and *Surveys in North America* on the *Response Rate*, do receive support from our results.

To facilitate the interpretation of the three significant interaction terms, we present a plot of the involved variables in Figures 1, 2 and 3. Figure 1 indicates that only for studies relying exclusively on family respondents, studies with reminders clearly differ from studies without reminders in terms of the achieved response rate: while surveys of family respondents that used reminders report an average response rate of 15%, surveys of family respondents that did not use reminders report an average response rate of 26%. For surveys where only non-family respondents or both non-family and family respondents were addressed, Figure 1 suggests that reminders do not make a large difference.

Figure 2 indicates that family respondents react differently to the establishment of precontacts than non-family respondents do. While surveys of family respondents who tried to establish contact with survey addressees before sending out the questionnaires report

Table 8 Multiple Regression Analyses

Dependent variable	Response rate							
	Model A (direct effects only)				Model B (including interaction effects)			
	Standardized beta	t value	p value	VIF	Standardized beta	t value	p value	VIF
Constant		2.461	.015**			2.775	.007***	
Survey population size	-.361	-4.025	.000***	1.182	-.370	-4.258	.000***	1.197
Publication year	-.241	-2.386	.019**	1.494	-.270	-2.701	.008***	1.580
Surveys in North America	-.145	-1.425	.157	1.512	-.136	-1.350	.180	1.610
Higher hierarchical level	-.057	-.612	.542	1.255	-.050	-.551	.583	1.305
Precontact	.157	1.688	.094*	1.263	.242	2.352	.021**	1.670
Incentives	-.082	-.898	.371	1.240	-.110	-1.015	.312	1.865
Electronic survey technique	.015	.157	.876	1.379	-.008	-.064	.949	2.664
Reminder	-.016	-.186	.853	1.085	.052	.560	.576	1.344
Family respondents	.058	.606	.546	1.333	.244	2.092	.039**	2.155
Firm size	-.013	-.146	.885	1.112	-.014	-.166	.869	1.189
Random sampling	-.031	-.327	.744	1.283	-.019	-.203	.840	1.359
Published in ETP or JBV	.071	.804	.423	1.134	.062	.674	.502	1.360
Precontact X family respondents					-.225	-1.903	.060*	2.221
Electronic survey techniques X family Respondents					-.046	-.347	.729	2.786
Incentives X family respondents					.041	.358	.721	2.091
Reminder X family respondents					-.185	-1.823	.071*	1.635
Survey population size X publication year					-.186	-2.162	.033**	1.178
R^2	.230				.318			
Adjusted R^2	.149				.211			
F	2.820***				2.961***			
N	126				126			

* $p < 0.10$;** $p < 0.05$;*** $p < 0.01$.**Figure 1** Interaction effect between *Reminder* and *Family Respondents*

average response rates of 19%, surveys of family respondents that did not establish such a precontact report average response rates of 25%. In contrast, among surveys drawing on only non-family respondents or family and non-family respondents, studies with precontacts achieved an average response rate of 30%, while studies without such precontacts achieved an average response rate of only 19%.

Figure 3 suggests that the effect of the *Survey Population Size* has become more pronounced in surveys published more recently (as of Figure 3: in the year 2000 or later) than in surveys that have been published in earlier days, which explains why our interaction term in Model B appears to be significantly related to the *Response Rate*. In Figure 3, the differentiation between rather large survey populations (i.e., with 1,501 addressees and more) and

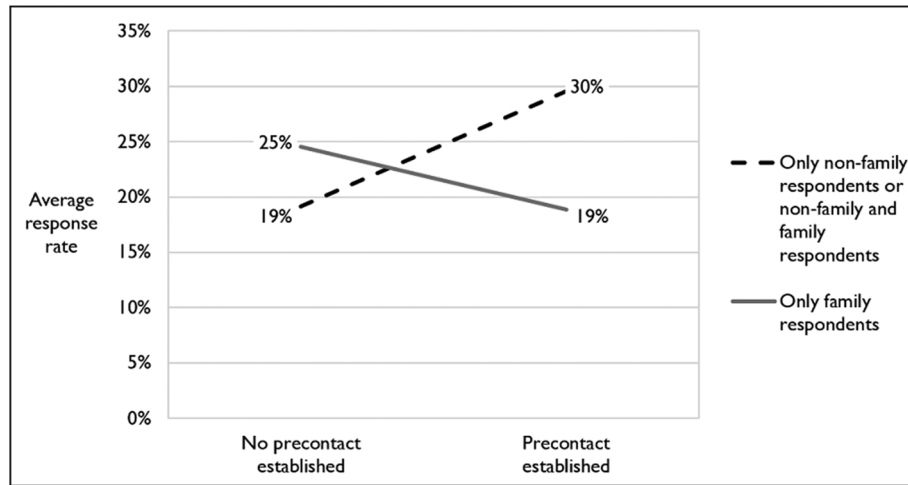


Figure 2 Interaction effect between *Precontact* and *Family Respondents*

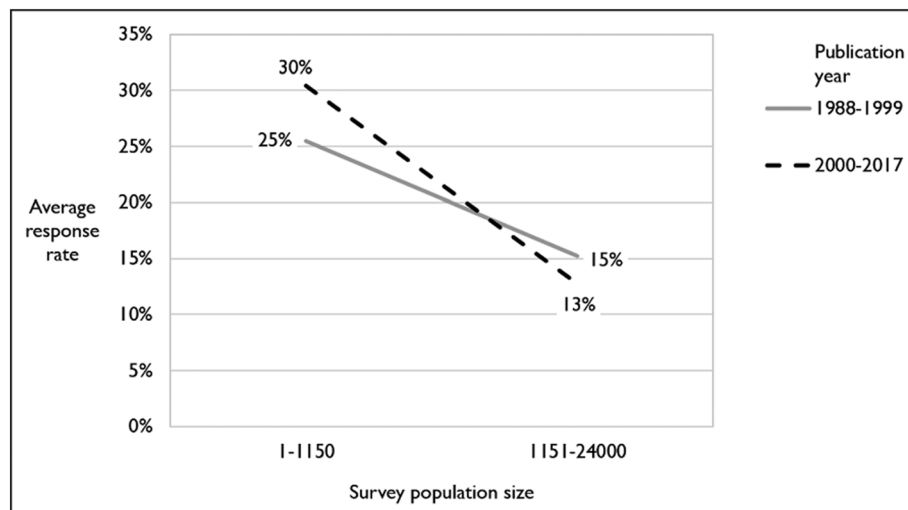


Figure 3 Interaction effect between *Survey Population Size* and *Publication Year*

rather small survey populations (1 to 1,500 addressees) is based on the median value of *Survey Population Size*. Our results indicate that the difference of surveys with rather large survey populations and small survey populations in terms of the response rate achieved has become larger over time. Consequently, our results suggest that addressing large survey population sizes is particularly detrimental to the response rate in more recent years, which makes limiting survey population sizes to a smaller number of addressees even more important.

Discussion and conclusions

Response rate levels and overall implications

The 126 family business survey studies analyzed in this paper achieved an average response rate of approximately

21%. In addition, in line with our hypothesis H12a, our multiple regression results indicate that the average response rates in such studies have significantly decreased over time. While the decrease in response rates is in line with other comparable meta-analytic studies of response rates (Baruch, 1999; Chidlow *et al.*, 2015), the absolute level of response rates is not. Compared to the results of similar studies, the average response rate that we found seems low. For instance, for highly ranked general management, organizational studies and business journals, average response rates of 44% (Mellahi and Harris, 2016), 52% (Anseel *et al.*, 2010), 53% (Baruch and Holtom, 2008), and 56% (Baruch, 1999) were reported. When indiscriminately applying such expectations regarding response rates to family business survey studies, surveys of family businesses are unlikely to meet these expectations. Naturally, every survey study and every response rate achieved must be individually

assessed. However, our analysis at least reveals that, on average, the response rates in family business survey studies – even those that are published in highly ranked journals such as ETP and JBV – are lower than those in general management and business studies. Consequently, based on our results and potentially due to the alleged secretiveness of family businesses in regard to surveys (Stamm and Lubinski, 2011; Wilson *et al.*, 2014), we add to the literature on response rates in management research (e.g., Baruch, 1999; Baruch and Holtom, 2008; Anseel *et al.*, 2010; Chidlow *et al.*, 2015; Mellahi and Harris, 2016) the implication that editors and reviewers may need to relax their response rate expectations for family business survey studies relative to other survey studies in management research. In turn, authors may use our results to compare their achieved response rates to the average response rates in family business survey studies. That is, our results could be used by authors of family business survey studies to document that their achieved response rate may be comparable to other well-published family business survey studies, even though the response rate may be lower to numbers achieved in general-interest management survey studies (e.g., Baruch, 1999; Baruch and Holtom, 2008; Anseel *et al.*, 2010; Chidlow *et al.*, 2015; Mellahi and Harris, 2016). Given the significantly growing volume of and scholars interested in family business research (e.g., Short *et al.*, 2016; Dibrell and Memili, 2019) and the fact that surveys are the dominant quantitative approach in family business research (Evert *et al.*, 2016), we are confident that these implications are relevant to an already large and growing research community interested in family firm survey research.

Survey population characteristics

In addition, our study reveals some factors that may be used by authors of future family business survey studies to increase their response rates. One of these factors is the *Survey Population Size*. Confirming hypothesis H7, our findings indicate that when authors address larger survey populations, the average response rate achieved is lower. In line with hypothesis H12a, our results further suggest that this effect is even more pronounced in more recent surveys than in surveys that have been conducted earlier. Consequently, if the response rate per se is considered an important feature of survey quality – which may particularly be the case in surveys aiming for statistical generalization (Cook *et al.*, 2000; Manfreda *et al.*, 2008) – survey authors should think about addressing smaller survey population sizes that are nevertheless prototypical to the population of interest (Speklé and Widener, 2018). Such smaller populations may entail the advantage that the scarce resources of survey authors can be spread across a

smaller number of survey addressees and could thus be used more intensively to ‘chase’ the individual survey addressee.

In addition, we add to the survey methods literature a family firm-specific factor affecting response rates. That is, in line with our hypothesis H9a, in Model B, we find that surveys exclusively devoted to family members yield significantly lower response rates. Consequently, our above implication that journal editors and reviewers may need to relax their expectations regarding response rate levels in family business research specifically applies to surveys targeting exclusively family respondents. A potential reason for this finding is that our above argument on the secretiveness of family firms (cf. Stamm and Lubinski, 2011; Wilson *et al.*, 2014) may be especially valid for the case of family members. That is, our results may indicate that family members are less open to participating in survey studies than non-family members working in family firms. Family business survey researchers may therefore consider the appropriateness of addressing non-family members in family firms when aiming for high response rates. This consideration may not always be possible, especially when the questionnaire addresses both family and business issues, where the perspective of a family member will most likely be necessary. However, in surveys addressing rather business-only phenomena, non-family managers in family firms may be appropriate respondents, too, and according to our results, they may promise higher response rates than family members.

In contrast to these significant results on factors in the survey population category, we could not find a significant association between *Surveys in North America, Higher Hierarchical Level, Random Sampling and Firm Size* and the *Response Rate*. That is, our expectation expressed in H5 that the location of the survey (North America vs. the rest of the world) would not have an impact on the response rate could be confirmed, while our expectations that the respondents’ higher hierarchical level (H6), random sampling techniques (H8) and the surveyed firms’ size (H10) would be associated with the response rate could not be confirmed. We therefore cannot infer specific recommendations for survey researchers on these non-significant factors other than that their choices on these factors do not seem to affect response rates.

Survey process characteristics

Both regression models suggest that *Precontact* is significantly associated with the *Response Rate*, which is in line with our hypothesis H1. Consequently, for the field of family business research, our results confirm those of prior studies that stress the importance of establishing contacts with survey addressees before

actually sending out questionnaires (e.g., Roth and BeVier, 1998; Edwards *et al.*, 2002; Chidlow *et al.*, 2015). When aiming to achieve higher response rates, family business survey researchers may therefore be well advised to make the additional effort of contacting the members of the survey population before sending out their questionnaires.

However, this strategy does not seem to work for all types of respondents. Our analysis of interaction effects reveals that this approach seems less fruitful for family respondents (see Figure 2). The interaction effect portrayed in Figure 2 even indicates that precontacts with family respondents may be detrimental to the response rate, which is line with our hypothesis H9b. A potential explanation for this finding may be that family respondents could be put off by multiple attempts to establish contact. Thus, they could react more negatively to the receipt of questionnaires after the attempt to establish precontact. In contrast, our results indicate that precontacts are more successful with non-family respondents, which is in line with prior findings on precontacts as a response rate-enhancing technique (see above). It thus appears that the positive picture of precontacts drawn in the existing literature on survey response rates does not fully apply to family business research. Family business researchers may thus consider trying to establish precontacts only with non-family respondents, not with family respondents, in their future survey studies.

We also found a significant interaction effect between *Reminder* and *Family Respondents*, again supporting hypothesis H9b. On the one hand, this result suggests that for non-family respondents, reminders do not make a significant difference for the response rate, which is in line with other meta-analytic studies of response rates in management (Cycyota and Harrison, 2006) and accounting studies (Hiebl and Richter, 2018). On the other hand, our findings arrive at the result that studies of family respondents who drew upon reminders report significantly lower response rates than studies that did not use reminders. While somewhat counter-intuitive, similar results have been found in prior meta-analytic studies in management research that also report a negative correlation between the use of reminders and response rates (Baruch and Holtom, 2008; Chidlow *et al.*, 2015; Mellahi and Harris, 2016). Despite these findings, it seems hardly plausible that response rates suffer as a result of sending out reminders. It is more likely that studies that have not achieved a satisfactory response rate after the first wave of survey invitations later draw on reminders to grow an initially low response rate (cf. Baruch and Holtom, 2008; Chidlow *et al.*, 2015). Consequently, we do not interpret this finding as suggesting that reminders are not a valuable method to increase the response rates in family business survey research. Nevertheless, our

findings may indicate that some surveys of family respondents were not well designed in the first place and thus needed to send out reminders afterwards. This interpretation would point to a need to design and pretest survey studies of family respondents more diligently before sending them out.

In addition to these significant results, some non-significant results seem interesting. Among these findings, our results suggest that in family business research, electronic survey studies do not feature lower response rates than more traditional mail surveys, in contrast to our hypothesis H2. This result is in contrast to other meta-analytic studies reporting that electronic surveys feature lower response rates (e.g., Manfreda *et al.*, 2008; Shih and Fan, 2008). Instead, our data suggest that in family business research, electronic survey methods are not necessarily detrimental to response rates, which is in line with recent evidence suggesting that electronic and non-electronic surveys currently achieve comparable response rates (Saunders, 2012; Newberry and Israel, 2017). In addition to the data-gathering method, the usage of incentives is a frequently discussed and recommended approach to increase response rates (e.g., Dillman *et al.*, 2014; Singer and Ye, 2013). However, the choice and effect of incentives are much debated. Certain types of incentives, such as offering the survey results to respondents, were not found to increase response rates (Keusch, 2015). The fact that such offerings of survey results are often used as incentives in business-related studies (Hiebl and Richter, 2018) may explain why, in our study, we did not find a significant relationship between incentives and response rates. In contrast, in their study on response rates in small firms, Newby *et al.* (2003) found a response-enhancing effect of monetary incentives, which may also be more promising for family business surveys.

Limitations

Naturally, our results are subject to some limitations. First, we considered only one design feature of survey studies – the response rate. Fellow researchers must keep in mind that not only the response rate but also many more aspects need to be considered when designing and conducting survey studies. For instance, the measurement of constructs, adequate sample sizes, the representativeness of a sample to the underlying population, issues with omitted variables, and common-method and nonresponse biases warrant their attention, too (cf. Dillman *et al.*, 2014; Evert *et al.*, 2016; Speklé and Widener, 2018).

Second, our results stem from only survey studies published in seven predefined journals. While this approach is not uncommon in reviews of the family business literature, it cannot be ruled out that the inclusion of survey studies published in other journals would have

led to somewhat different results. Third, our analyses are based on a relatively small sample of 126 survey studies. Well-published other meta-analytic studies on response rates rely on similar sample sizes (e.g., Yammarino *et al.*, 1991; Baruch, 1999; Hiebl and Richter, 2018), but we cannot rule out the possibility that a larger sample size would have yielded other results.

Fourth, the set of potential factors impacting response rates is restricted to the factors that are usually reported in the methods sections of published survey studies. While this approach is common in well-published meta-analytic studies of response rates similar to ours (Cycyota and Harrison, 2006; Baruch and Holtom, 2008; Chidlow *et al.*, 2015; Mellahi and Harris, 2016), there may be factors that impact response rates but that have not been featured in our analyses. Factors such as the length of questionnaires (Deutskens *et al.*, 2004; Yammarino *et al.*, 1991), institutional sponsorship (Edwards *et al.*, 2002) or social ties between researchers and survey addressees (Bartholomew and Smith, 2006) may affect response rates but can be assessed only if the authors of surveys are open to sharing such information with meta-analytic researchers like us. There is recent evidence that this willingness is not overly strong (Hiebl and Richter, 2018), which is why we have refrained from this possibility. However, for more comprehensive analyses of the drivers affecting response rates across a large number of studies, we call for more transparent reporting on the survey methods used. That is, we believe that it should at least become standard that the survey instrument (i.e., the questionnaire) and the invitation letter for participants are made available along with the published article. Such additional information would not need to take up potentially scarce printed journal space but could be published as online appendices, as already practiced in some survey studies published in leading business-related journals (e.g., Windolph and Moeller, 2012; Speckbacher and Wentges, 2012).

Despite these limitations, we believe that our results are valuable to other family business survey researchers for at least two reasons: (1) they are the first to offer a benchmark of response rates in family business survey research; and (2) they identify some factors that are associated with higher response rates. We therefore hope that our results provide some useful insights for family business survey researchers when designing their next survey studies.

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Declaration of Conflicting Interests

The authors declare no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

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Appendix

Table A1 List of the 126 papers included in our analyses

Acquaah (JFBS, 2013)	Kellermanns, Eddleston, Barnett, & Pearson (FBR, 2008)
Anderson, Jack, & Dodd (FBR, 2005)	Koiranen (FBR, 2002)
Backman & Palmberg (JFBS, 2015)	Koropp, Grichnik, & Kellermanns (JSBM, 2013)
Bannò & Sgobbi (JSBM, 2016)	Kwan, Lau, & Au (FBR, 2012)
Barnett, Eddleston, & Kellermanns (FBR, 2009)	Lansberg & Astrachan (FBR, 1994)
Basco (JFBS, 2013)	Lardon, Deloof, & Jorissen (JFBS, 2017)
Basco & Rodríguez (FBR, 2009)	Lee (FBR, 2006)
Binz, Astrachan, Patel & Wanzenried (JFBS, 2014)	Leon-Guerrero, McCann, & Haley (FBR, 1998)
Binz, Hair, Pieper, & Baldauf (JFBS, 2013)	Leroy, Manigart, Meuleman, & Collewaert (JSBM, 2015)
Blanco-Mazagatos, de Quevedo-Puente, & Delgado-García (JFBS, 2016)	Liang, Wang, & Cui (FBR, 2014)
Blumentritt (FBR, 2006)	Lockamy, Carson, & Lohrke (JFBM, 2016)
Boles (FBR, 1996)	Madison, Kellermanns, & Munyon (FBR, 2017)
Boyd, Upton, & Wircenski (FBR, 1999)	Madison, Runyan & Swinney (JFBS, 2014)
Brun de Pontet, Wrosch, & Gagne (FBR, 2007)	Malone (FBR, 1989)
Cabrera-Suárez, Déniz-Déniz, & Martín-Santana (JFBS, 2014)	Mandelbaum (FBR, 1994)
Campopiano, De Massis, & Chirico (FBR, 2014)	Maseda, Iturralde, & Arosa (JSBM, 2015)
Carr & Hmieleski (ETP, 2015)	Merino, Monreal-Pérez, & Sánchez-Marín (JSBM, 2015)
Casillas, Moreno, & Barbero (FBR, 2010)	Molly, Laveren & Deloof (FBR, 2010)
Cesaroni & Sentuti (JFBM, 2016)	Morris, Williams, Allen, & Avila (JBV, 1997)
Chang, Memili, Chrisman, Kellermanns & Chua (FBR, 2009)	Murphy (FBR, 2005)
Cherchem (JFBS, 2017)	Mustakallio, Autio & Zahra (FBR, 2002)
Chrisman, Chua, & Sharma (FBR, 1998)	Naldi, Chirico, Kellermanns, & Campopiano (FBR, 2015)
Classen, Van Gils, Bammens & Carree (JSBM, 2012)	Naldi, Nordqvist, Sjöberg, & Wiklund (FBR, 2007)
Claver, Rienda, & Quer (FBR, 2009)	Nam & Herbert (FBR, 1999)
Corbetta & Montemerlo (FBR, 1999)	Okoroafo (FBR, 1999)
Corten, Steijvers, & Lybaert (JFBS, 2017)	Pittino, Visintin, Lenger, & Sternad (JFBS, 2016)
Craig & Dibrell (FBR, 2006)	Ramos, Man, Mustafa, & Ng (JFBS, 2014)
Craig, Dibrell, & Davis (JSBM, 2008)	Rau (FBR, 2000)
Craig, Dibrell, & Garrett (JFBS, 2014)	Remery, Matser & Flören (JFBM, 2014)
Cunningham, Seaman, & McGuire (JFBS, 2016)	Revilla, Pérez-Luño, & Nieto (FBR, 2016)
Daily & Dollinger (FBR, 1992)	Romano, Tanewski & Smyrnios (JBV, 2000)
Daily & Thompson (FBR, 1994)	Royer, Simons, Boyd & Rafferty (FBR, 2008)
Davis, Allen & Hayes (ETP, 2010)	Rue & Ibrahim (FBR, 1996)
Davis, Dibrell, Craig & Green (FBR, 2013)	Sardeshmukh & Corbett (FBR, 2011)
De Kok, Uhlaner & Thurik (JSBM, 2006)	Schwartz & Bames (FBR, 1991)
De Massis, Sieger, Chua, & Vismara (FBR, 2016)	Sciascia & Mazzola (FBR, 2008)
Dean (FBR, 1992)	Sciascia, Mazzola, & Chirico (ETP, 2013)
Dekker, Lybaert, Steijvers, Depaire, & Mercken (FBR, 2013)	Seymour (FBR, 1993)
Delmas & Gergaud (FBR, 2014)	Sharma, Chrisman & Chua (JBV, 2003)
Eddleston & Kellermanns (JBV, 2007)	Sharma, Chrisman, & Chua (FBR, 2003)
Eddleston, Kellermanns, & Zellweger (ETP, 2012)	Smyrnios, Romano, Tanewski, Karofsky, Millen & Yilmaz (FBR, 2003)
Ellington, Jones & Deane (FBR, 1996)	Sonfield & Lussier (FBR, 2004)
Erikson, Sørheim, & Reitan (FBR, 2003)	Sonfield & Lussier (JFBM, 2012)
Fahed-Sreih & Djoundourian (FBR, 2006)	Songini & Gnan (JSBM, 2015)
Feltham, Feltham, & Barnett (JSBM, 2005)	Sorensen, Folker & Brigham (ETP, 2008)
Fiegenger, Brown, Dreux, & Dennis (ETP, 2000)	Stanley & McDowell (JFBS, 2014)
Filbeck & Lee (FBR, 2000)	Stanley, Kellermanns, & Zellweger (FBR, 2017)
Filbeck & Smith (FBR, 1997)	Steijvers & Niskanen (JFBS, 2014)
Gallo (FBR, 1995)	Stenholm, Pukkinen, & Heinonen (JSBM, 2016)
Gallo (FBR, 1998)	Stockmans, Lybaert, & Voordeckers (FBR, 2010)
Gallo & García Pont (FBR, 1996)	Taso, Chen, Lin & Hyde (FBR, 2009)
Gallo, Tàpies & Cappuyns (FBR, 2004)	Vandebeek, Voordeckers, Lambrechts & Huybrechts (JFBS, 2016)
Gnan, Montemerlo, & Huse (JSBM, 2015)	Vandekerckhof, Steijvers, Hendriks, & Voordeckers (FBR, 2015)
Goldberg & Wooldridge (FBR, 1993)	Vandemaele & Vancouteren (JSBM, 2015)
Hanisch & Rau (JFBS, 2014)	Venter, Boshoff, & Maas (FBR, 2005)
Henssen, Voordeckers, Lambrechts & Koiranen (JFBS, 2014)	Voordeckers, Van Gils & Van den Heuvel (JSBM, 2007)
Hiennerth & Kessler (FBR, 2006)	Wall (JSBM, 1998)
Huybrechts, Voordeckers, D'Espallier, Lybaert, & Van Gils (JSBM, 2016)	Ward & Handy (FBR, 1988)
Jorissen, Laveren, Martens & Reheul (FBR, 2005)	Westhead & Cowling (ETP, 1998)
Karofsky, Millen, Yilmaz, Smyrnios,	Westhead, Cowling, & Howorth (FBR, 2001)
Kellermanns & Eddleston (ETP, 2006)	Zahra (FBR, 2005)
	Zahra (JBV, 2003)
	Zahra, Hayton, Neubaum, Dibrell & Craig (ETP, 2008)
	Zain & Kassim (JFBM, 2012)
	Zellweger, Nason & Nordqvist (FBR, 2012)