

## **The IfM Bonn Founder Panel – Design and Research Potential**

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### **1. Introduction**

Research on firm formation in Germany is mostly based on data sets of firms which have already successfully completed and survived the start-up process. This kind of research has created essential knowledge on the formation of firms and the related decision-making process. Nevertheless, this research approach is afflicted with some serious methodological shortcomings. The first and most significant problem is the so-called survivor bias: Nascent entrepreneurs who discontinue the start-up process remain unobserved and cannot be analysed. Since nothing is learned about ventures which drop out of the start-up process, one cannot simply conclude that success factors for survivors were equally important for those start-up projects which were terminated at an early stage (Davidsson/Honig, 2003). In other words, an essential part of the start-up process is ignored. The second problem follows from collecting information on the founder and the start-up process after the firm has already been established. If this information is gathered at all, it is gathered retrospectively. This practice runs the risk of memory decay and hindsight bias as well as of rationalization after the fact. Consequently, there is a risk that in retrospect outcomes are attributed to factors that were not truly present at the relevant time.

In order to avoid these problems, an approach is needed that allows both the identification of a sample of nascent entrepreneurs at a very early stage of the start-up process and the observation of this sample over time. The critical question is how to identify this group of individuals (Reynolds, 1997). The IfM Bonn decided to visit start-up exhibitions and trade fairs in order to get in touch with individuals who are considering to establish a new business. The data collected through surveys among visitors of start-up exhibitions represent the base of the IfM Bonn Founder Panel.

The IfM Bonn Founder Panel is the first and (currently) only comprehensive data set in Germany which allows the analysis of the transition from nascent

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entrepreneur to new firm.<sup>1</sup> Thus, a large research gap (van Gelderen et al., 2005; Brixy et al., 2008) can be closed. This paper describes the survey design, the structure, and the research potential of the IfM Bonn Founder Panel.<sup>2</sup>

## 2. Survey Design

Since the 1990s, start-up exhibitions and trade fairs take place in various metropolitan areas in Germany. They provide individuals who consider establishing a new business with various forms of information and counselling. From 2003 to 2006, more than 10,000 individuals p.a. visited each of the fairs in Berlin, Essen, and Stuttgart. In this period, the number of new business ventures reached its peak due to special government support for formerly unemployed enterprise starters (e. g. Günterberg et al., 2010, 67). In the following years, both the number of new start-ups and the number of trade fair visitors decreased. The three fairs in Berlin, Essen, and Stuttgart nowadays count approx. 5,000 visitors each. Nevertheless, these fairs are still an appropriate and efficient way to get in touch with nascent entrepreneurs.

In its surveys the IfM Bonn included only those fairs which were expected to attract a high number of visitors. If the number of respondents was unexpectedly low, the fair in question was excluded from further surveys.<sup>3</sup> The original goal to cover all German regions could not be attained because these kinds of fairs are not staged in all German Federal States. Therefore, visitors to the fairs in Berlin, Essen, and Stuttgart dominate the IfM Bonn Founder Panel. Until the end of 2011, the IfM Bonn has visited 28 fairs at seven different locations – Bremen, Berlin, Dresden, Essen, Frankfurt/Main, Nürnberg, and Stuttgart.

Most surveys were conducted in the sole responsibility of the IfM Bonn. Some were realised in co-operation with the fair organisers.<sup>4</sup> Interviewers approached the trade fair visitors at random and asked them to fill in the questionnaire.<sup>5</sup> Mostly, the visitors completed the questionnaire on their own without further assistance. The questionnaire usually comprised two pages. As a postal

<sup>1</sup> The German Panel of Nascent Entrepreneurs, established in the context of the German edition of the Global Entrepreneurship Monitor, was discontinued due to the small number of observations.

<sup>2</sup> For an extended version of this paper see Kranzusch/Kay (2011).

<sup>3</sup> This applies to the fairs staged in Frankfurt/Main and Bremen which have relatively small numbers of visitors. The “Karrierestart” (Dresden) was omitted because this fair also provides general occupational counselling. This is the main reason why it attracts a fairly high number of visitors but only a relatively small share of them is interested in starting up a new business.

<sup>4</sup> This does not have any implications for the design of the questionnaire itself, but some organisers wanted to collect (additional) data in order to analyse the exhibition success or to obtain suggestions for future improvements of the trade fairs.

<sup>5</sup> Usually, the interviewers were students who were instructed beforehand.

address is needed for subsequent surveys, the respondents were asked to give their address at the fair. Approx. 64% of them complied with our request.

About one year after the fair took place, the respondents are contacted for a second time.<sup>6</sup> If the respondents do not answer within approx. four weeks, a reminder is sent. The postal surveys are repeated – at intervals of one year – up to five times. The applied questionnaires usually comprise two pages.

### 3. Panel Design

#### 3.1 Panel Structure

Start-up exhibitions are not only visited by nascent entrepreneurs but also by entrepreneurs who have already set up their business (mostly) a few months or years before the fair. Due to the random approach both visitor groups end up in the survey. They are separated after data entry.<sup>7</sup> Hence, two sub-panels are created – the Nascent Entrepreneur Panel and the Entrepreneur Panel.

The Nascent Entrepreneur Panel starts with data collected at the fairs (wave A) and continues with a follow-up survey conducted one year after the fair took place (wave B). It provides information on the status of the venture of the nascent entrepreneurs. Respondents who have not yet established a business are contacted again one year later (wave C). Respondents who have not started a new business two years after the fair took place are excluded and thus are not subject to further surveys. Respondents who terminated their self-employment before the survey of wave B or wave C will not be interviewed again either. Respondents who both have established a company and are still self-employed are transferred to the Entrepreneur Panel.

Thus, the Entrepreneur Panel starts with the data of respondents who were either already self-employed while visiting the fair (wave A) or who started a new business within two years after visiting the fair (wave B or C). These entrepreneurs are interviewed annually (waves D to G) with regard to the development of their venture. Entrepreneurs who did not participate in the survey anymore or who have terminated their self-employment are also omitted from further surveys.

The IfM Bonn Founder Panel can observe nascent entrepreneurs over a maximum period of five or six years, respectively. Respondents who were already

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<sup>6</sup> A stamped addressed envelope is enclosed.

<sup>7</sup> The questionnaire contains a corresponding screening question. At first, it was “Have you already started a business?”. After a while, it was modified to “Are you currently self-employed or do you currently work freelance?” 64.9% of all interviewed visitors negated this question. The share of visitors who were not self-employed varies only slightly from fair to fair.

self-employed when visiting the fair can be observed over a maximum period of four years.

3.2 Number of Observations

3.2.1 Wave A: Fair Surveys

More than 190,000 people visited the 28 included start-up exhibitions. A total of 16,262 persons have been surveyed (Table 1). The share of respondents in the total number of trade fair visitors varies between 2% (Dresden 2004) and 23% (Nürnberg 2007). The average participation rate in the trade fair surveys amounts to 8.5%.

Table 1  
Details of the start-up exhibition surveys

Year	Location	Number of visitors*	Number of respondents	Participation rate in %
2003	E	12,000	1,364	11.4
2004	B, D, E, S	49,500	3,030	6.1
2005	B, BR, E	25,100	1,636	6.5
2006	B, E, S	28,500	2,279	8.0
2007	B, BR, E, F, N	21,400	2,314	10.8
2008	B, BR, E	11,300	1,335	11.8
2009	B, E, S	15,600	1,518	9.7
2010	B, E	10,400	854	8.2
2011	B, E, N, S	17,500	1,932	11.0
Total	28	191,300	16,262	8.5

B = Berlin, BR = Bremen, D = Dresden, E = Essen, F = Frankfurt/Main, N = Nürnberg, S = Stuttgart.  
\* Information of the local organisers.

3.2.2 Waves B and C:  
*Follow-up Surveys of Nascent Entrepreneurs*

Of the 16,262 interviewed trade fair visitors, a total of 10,549 were not already self-employed. 6,219 of them gave their address. At the end of 2011, the follow-up surveys of waves B and C were completed for trade fair visitors of the years 2003 until 2009. Visitors to the fairs staged in 2010 were thus surveyed only once so far (wave B). Visitors to the fairs which took place in 2011 will be surveyed for the first time in 2012. As a result, until the end of 2011, a total of 4,971 trade fair visitors were contacted in wave B. 2,155 of them sent a completed questionnaire which corresponds to a response rate of 43.4%. 913 respondents of wave B had established a new firm until the end of 2011.

This equals a start-up rate of 42.7%. Of these founders, 41 had already terminated their self-employment at the time of the survey. The remaining 872 stated to be still self-employed. Another 1,236 respondents were still classified as nascent entrepreneurs.

In wave C 3,399 individuals were contacted again, 972 of them returned a completed questionnaire. This corresponds to a response rate of 28.6%. 309 respondents started a new business between the survey of waves B and C. 46 of them had already abandoned self-employment at the time when wave C was conducted. 663 respondents still had not set up a venture and were not contacted again.

### 3.2.3 Waves D to G: *Follow-up Surveys of Entrepreneurs*

Until the end of 2011, 3,520 entrepreneurs were contacted by postal mail in wave D. 2,485 of them were already self-employed when visiting the fair, another 1,035 started their business after visiting the fair (and were still active as an entrepreneur). 1,313 sent a completed questionnaire, among them 512 still active entrepreneurs who started their venture after visiting the fair. In wave E, 726 out of 1,916 contacted individuals answered the questionnaire (37.9%). 283 still active entrepreneurs started their venture after visiting the fair. In wave F, 412 out of 735 individuals completed the questionnaire (56.1%), among them 185 still active entrepreneurs who started their venture after visiting the fair. Finally, in wave G, 251 out of 313 contacted individuals completed the questionnaire (80.2%), among them 104 still active entrepreneurs who started their venture after visiting the fair.

## 3.3 Representativeness and Address Quality

Panel participants are a random sample of visitors to selected start-up exhibitions. Due to the above mentioned regional restrictions one cannot expect that the panel participants represent the population of nascent entrepreneurs in Germany completely.<sup>8</sup> Nevertheless, the IfM Bonn Founder Panel should be representative for visitors to start-up exhibitions in Germany: The surveys included on average 8.5% of all trade fair visitors. The willingness to participate in the surveys was rather stable across the various fairs, and since autumn 2003 the largest start-up exhibitions have been included.<sup>9</sup>

<sup>8</sup> This is the result of a comparison of surveyed visitors to the fairs which took place in 2003 and 2004 with nascent entrepreneurs included in the German Socio Economic Panel (SOEP) (wave 2003) (Kranzusch, 2005).

<sup>9</sup> Due to refusals in the follow-up surveys a survivor bias in the data collected in waves B to G cannot be ruled out.

The quality of addresses collected during the trade fair surveys is rather high (Table 2): In wave B, the share of undeliverable letters amounts to only 11.2%.<sup>10</sup> It increases to 17.8% in wave C. In waves D to G, the rate of non-deliverable mail varies between 3.4% and 16.3%. In order to keep this rate as small as possible we ask participants in each wave for their effective address.

Table 2  
Address quality in waves B to G

	Wave B	Wave C	Wave D	Wave E	Wave F	Wave G
Number of contacted individuals	5,598	4.135	4,204	2,265	818	324
Non-deliverable letters, total	627	736	684	349	83	11
Non-deliverable letters, in %	11.2	17.8	16.3	15.4	10.1	3.4

4. Overview of Collected Items

The questionnaire applied in wave A comprises almost all items which are considered essential in entrepreneurship research. Included questions deal with socio-demographic characteristics, human capital resources, motives to set a new business up, and general attitudes. Furthermore, data on the propensity to start a new business in the near future and on the specifications of the planned venture are also collected. Table 3 provides a detailed overview of regularly collected items. In addition, selected trade fair surveys covered various special topics, e.g. networks, social security needs, and support received from the Federal Employment Agency, and thus enhanced the IfM Bonn Founder Panel further.

The questionnaires used in waves B and C collect information on the status of the planned venture. Individuals who have not yet realised their venture are asked about how probable the realisation of the planned venture is and what the reasons are for not carrying the venture through. Individuals who have already established a company are asked to provide information on the business, e.g. industry, number of employees, number of partners, and use of public financial support. They are also asked about start-up problems, the ability to earn one’s living through self-employment, and the general willingness to repeat the step into self-employment.

<sup>10</sup> In case of inaccurate or illegible addresses we try to track down the accurate address. This procedure increases the number of contacted individuals as shown in Table 2.

Table 3

**Regularly collected items in wave A**

Category	Item
<i>All respondents</i>	
Socio-demography	Age, gender, family status, nationality, migration background, year of immigration, number of children, age of youngest child
Human capital	Education, training qualifications, industry specific experience, self-employment experience, failure experience, parent(s) self-employed
Motives to start a new business	(Anticipated) unemployment, prestige, higher relative earnings, independence/autonomy, self-realisation, dissatisfaction in dependent employment, combining work and family
Attitudes	i. e. risk preference, profit orientation, disposition to co-operate, self assurance, self-monitoring
<i>Nascent Entrepreneurs only</i>	
Planned venture	Propensity to start a new business, business idea, industry, new company formation or takeover, working time, level of innovativeness, seed capital
Employment status	current employment status
<i>Entrepreneurs only</i>	
Venture	Start-up year, industry

The questionnaire in wave D again comprises a set of questions regarding the specifications of the venture, e.g. industry, funding, and level of innovativeness. Furthermore, various success indicators (i.e. number of employees, annual surplus, ability to earn one's living, and willingness to repeat the step into self-employment) are collected as well as information on the use of public financial support and entrepreneurial problems. Respondents who have discontinued self-employment are asked about the reasons for closing the company. Occasionally, special additional topics are included, such as networks or shortage of skilled employees.

The questionnaires used in waves E to F are broadly identical and constitute an extract of the questionnaire applied in wave D. In particular, the success indicators as well as the entrepreneurial problems are collected again. Individuals who have terminated their self-employment are asked again about the reasons for this.

## 5. Research Potential

The IfM Bonn Founder Panel opens up various possibilities for cross-sectional and longitudinal analyses of nascent entrepreneurs, entrepreneurs, and

their ventures. With regard to cross-sectional analyses, the possibility to thoroughly analyse both nascent entrepreneurs and the factors which influence the propensity to start a business are to emphasise. Examples are the studies of Kranzusch (2005) who examined the role of gender on the propensity to start a business, Kay/Schlömer (2009) who analysed the differences between individuals planning a new business formation and a business takeover, Kay/Kranzusch (2010) who investigated the planned ventures of restarters and portfolio founders, Stracke (2010) who analysed the significance of human capital resources for individuals planning a new company formation or a business takeover, and Kraus/Werner (2012) who examined the influence of a migration background on the propensity to start a business.

With regard to longitudinal analyses, it is important to stress two general research possibilities: Relating to nascent entrepreneurs, the main investigation focus lies on the realisation of the venture and the influencing factors. Relating to active entrepreneurs, the primary focus is placed on the development of the venture and the influencing factors. The IfM Bonn Founder Panel is rather unique in Germany as it allows the combination of information collected before starting the business with data on the finally founded business.

Due to the different number of observations in each wave, currently longitudinal analyses are recommended which are based on data of waves A to C. The scope for business development analyses based on data collected in waves D to F is currently still limited because of the low number of available observations. The number of observations in wave G is continually increasing. Therefore, it will soon be possible to investigate a larger number of young firms over a period of five years. In addition, the development of firms which were established before the fair can also be investigated. 24.5% of already self-employed trade fair visitors founded their company in the same year the fair took place, 19.9% in the year before the fair took place, and 17.9% two or three years before the fair was staged. We have not yet examined whether the data of firms established before and after visiting the fair can be pooled so that their development can be jointly analysed.

Until now, the following factors that influence the decision to enter self-employment have been investigated: Entrepreneurial image (e.g. Werner/Kay, 2006), experience of failure (Kranzusch/Kay, 2007), age of the nascent entrepreneur (Werner et al., 2008), network resources (Werner/Semrau, 2012), and migration background (Kay/Schneck 2012). In addition, Werner (2011) analysed the factors which influence the decision to abandon or to adhere to plans for starting a business.

## 6. Data Access and Outlook

The IfM Bonn Founder Panel can be used by every researcher with a non-commercial scientific interest. The data can be provided in SPSS or STATA

format. Due to reasons of data protection, analyses are only possible on the spot at the IfM Bonn.<sup>11</sup>

In autumn 2011, the IfM Bonn conducted the final survey among visitors of a start-up exhibition. All follow-up surveys will be continued as scheduled until the ultimate finalisation with wave G in 2017.

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