

Is there a Market for Micro-Lending in Industrialized Countries? – Evidence from Germany

Alexander S. Kritikos

GfA, Berlin & Europa-Universität Viadrina, Frankfurt (Oder)
e-mail: kritikos@euv-frankfurt-o.de

Christoph Kneiding

GfA, Berlin & Deutsches Mikrofinanz Institut
e-mail: c.kneiding@gfa-kritikos.de

Claas Christian Germelmann

Universität des Saarlandes, Saarbrücken
e-mail: germelmann@ikv.uni-saarland.de

Key Words

Microlending, Small Business Finance, Market Research

Abstract

In less developed and transition economies, microlending has become an efficient instrument for providing small and micro-businesses with the necessary financial resources to launch operations. In the industrialized countries, with their highly developed banking systems, however, there has been ongoing debate on the question of whether an uncovered demand for microlending services exists - and if so, how large this demand actually is. The present study explores customer preferences for microlending products based on a survey of 213 small and micro-business owners in Germany in the year 2005. Among the entrepreneurs interviewed, 15% reported revolving funding needs and an interest in microloans. We find that potential recipients of microloan products are retail business owners, foreign small business owners, and persons who had previously received private loans. Therefore, incumbent financial institutions as well as lenders entering the market are well advised to use a focused marketing strategy in targeting these specific groups. Furthermore, financial products should feature rapid access to short-term loans combined with personal contacts to loan officers who are able to thoroughly understand the client's business concept. A particularly noteworthy outcome of our study is that 65% of those surveyed financed their first three years of operations without applying for any loan at all. It is thoroughly possible that within this group a latent demand exists which could be unleashed by designing novel microlending products.

GfA Discussion Paper No. 02 (2006)

Is there a Market for Microlending in Industrialized Countries?

- Evidence from Germany -¹

Alexander Kritikos², Christoph Kneiding³ and Claas Christian Germelmann⁴

1. Introduction

Self-employment has become a buzzword in European labor market policy. In Germany, the number of entrepreneurs working without any employees (referred to as ‘solopreneurs’) has risen from 1.4 to 2.1 million in the last ten years (see Piorkowsky and Fleißig, 2005). It is estimated that every year, about 500,000 people start their own business, again more than half of them as solopreneurs. At the same time, Germany’s largest government bank, the ‘KfW-Mittelstandsbank’ (KfW) - which uses commercial banks as a distribution channel for its products and describes itself as the major supplier of start-up finance to small and micro-enterprises - reports that in 2005, about 6,000 KfW loans were granted in the segment of small business finance (below €25,000).

During recent years, German media have been replete with stories of young entrepreneurs with innovative business ideas whose loan approvals were rejected by their banks, and numerous analyses have shown that banks are doing an inadequate job in this area (see e.g., Evers, 2002). The low shares of loan-financed start-ups together with daily newspaper information raised the impression among many politicians, practitioners and consultants that most entrepreneurs in Germany are

¹ The authors would like to thank two anonymous referees as well as the participants of the Fordham University Conference on The Marketing of Financial Services in New York and of the Workshop “Entrepreneurship, Firm Demography and Industrial Location” at the WIFO in Vienna for their valuable comments. Kritikos and Kneiding gratefully acknowledge the financial support of the EQUAL-framework ‘EXZEPT’ which is financed by the European Social Funds (ESF) and the German Ministry of Labour and Social Affairs. Kritikos further acknowledges the financial support by the IAB - Institute for Labor Market Research (project no. 1-910), Nürnberg.

² Fakultät für Wirtschaftswissenschaften, Große Scharrnstr. 59, Europa-Universität Viadrina, 15230 Frankfurt (Oder) and GfA - Gesellschaft für Arbeitsmarktaktivierung, Kufsteinerstr. 7, 10825 Berlin, Germany.

³ GfA - Gesellschaft für Arbeitsmarktaktivierung, Kufsteinerstr. 7, 10825 Berlin, Germany.

⁴ Institute for Consumer and Behavioural Research, Saarland University, Postfach 15 11 50, 66041 Saarbruecken, Germany.

being excluded from the credit market.⁵ As such, improving access to finance seems pivotal in fostering entrepreneurship and promoting growth in small and micro-businesses. To explain the exclusion of these entrepreneurs, the asymmetric information approach (see inter alia Hillier and Ibrahim, 1993) identifies two main reasons on the supply side: (1) Small businesses usually cannot provide collateral. As a result, they are unable to signal their creditworthiness and banks are unable to assess the credit risk. Although banks could compensate for a lack of collateral through additional screening and monitoring, this would also increase their costs. (2) Owners of small and micro-businesses tend to take out relatively small loans. The fixed costs of granting these loans tend to eat up most of the profits from interest payments, and as a result, most institutional lenders using conventional credit technologies consider loans to this target group to be unprofitable.

Evidence from developing and emerging countries in Asia, Africa and South America, however, has shown that lending in this market segment can be a profitable business if appropriate technologies - known as microlending - are used (Armendáriz de Aghion and Morduch, 2005). Only in recent years has the attempt been made to put these technologies to use in European countries as well. Since then, successes have been reported especially by Eastern European microfinance institutions (MFIs) - for example, in Poland, Russia, and Georgia.⁶

During the last ten years, several local microfinance initiatives have also been created in Germany to extend loans to specific target groups (most of these projects financed by Federal or Regional Ministries of Economics and Labour). Expectations were that they would attract thousands of young entrepreneurs, particularly during their start-up period. However, the initiatives never got off the ground - not due to low repayment rates but because entrepreneurs simply failed to apply for funding (22 such taxpayer-financed initiatives provided services to a total of less than 1,000 entrepreneurs per year; cf. Habschick, Evers and Jung, 2004). The reason for this failure is very simple, however: the restrictions imposed for the use of these public

⁵ For a representative survey of the low shares of credit-financed start-ups, see for instance Caliendo, Kritikos and Wiessner (2006). Many sources claim that micro and small business owners are excluded from access to credit in Germany, see e.g., Reifner (2003).

⁶ For a detailed analysis of respective MFIs, see e.g., Armendáriz de Aghion and Morduch (2000), Nagarajan (2000) or Kritikos and Vigenina (2005).

funds made it nearly impossible for MFIs to develop products focussed on their target markets.⁷

Such experiences gave rise to the idea for the present analysis: MFIs should focus not only on the supply side by designing products that mitigate problems of information asymmetries, but also on the demand side through products responding to customers' needs. Similarly, Woller (2002) advocates a radical shift in MFIs' policies, moving away from a 'product-driven' microfinance culture and giving priority to the needs of the customers. To date, only a minority of MFIs in the developed world have conducted thorough market studies before launching their loan products.⁸ Consequently, little is known about customer preferences.

Our paper aims to close this research gap by examining the demand side of the microlending market in Germany. It intends to quantify the typical funding needs of small and micro businesses, to describe the intended use of funds acquired by the small business owners, and to identify the financial sources typically used by entrepreneurs to cover their financial needs. Our analysis focuses on business owners who financed their first three years' operations through borrowing. In particular, we identify which groups of business owners show a preference for microloans, and identify the product features that best serve their needs. Based on our findings, we derive the main aspects of a successful MFI marketing strategy. Thus, by merging current theory on entrepreneurship and microfinance, we provide a comprehensive picture of the microlending market in Germany.

The paper is organized as follows. Section II describes previous theoretical and empirical research results and outlines our research agenda. Section III gives a short

⁷ Restrictions imposed by public authorities are manifold (Habschick, Evers and Jung, 2004): persons usually have to be unemployed, sometimes below a certain age, sometimes of a certain sex, have to use loans only for certain purposes or have to start in a certain industry. The most important restrictions, however, for almost all programs are that businesses still have to be in the planning period and that borrowers only get these special loans once. Any firm owner who is already active in the market is ineligible for these products. The last two conditions are particularly counterproductive as it is crucial for an effective screening procedure that i) business owners already have gained some experience in the market and that ii) they have a chance to get subsequent loans (cf. Vigenina and Kritikos, 2004).

⁸ Telephone interviews by one of the authors (based on interview guidelines avoiding demand effects like socially desirable answers) with five major European MFIs in October 2005 showed that no MFI had made a preliminary market research. Instead, they applied a trial-and-error approach and gradually adapted their loan products to their clients' needs.

overview of the finance programs that exist in Germany to support small businesses. Sections IV and V describe the data and present the empirical analysis. Section VI discusses implications for a microfinance marketing strategy. Section VII concludes.

2. Previous Research

2.1 Small Business Finance Theory

In a seminal paper, Ang (1992) demonstrated the importance of acquiring start-up capital for small businesses. While finance theory generally posits that all firms have equal access to financial markets and that all share similar competitive positions (van Auken and Neeley, 1996), small businesses often face severe difficulties compared to large businesses. Numerous supply-side factors - limited information, market imperfections, and agency relationships to name only a few - affect small firms particularly severely, making traditional finance theory inapplicable to their situation (Ang, 1992; McMahan et al., 1993; Petty and Bygrave, 1993). Indeed, sources of finance available to small businesses differ strongly from those available to large companies, and their widespread lack of access to the loan market violates the assumptions of perfect capital markets (Ang 1992, van Auken and Neeley 1996).

A considerable body of theoretical literature deals with the idea that asymmetric information is at the root of credit rationing (Jaffee and Russel, 1976; Stiglitz and Weiss, 1981; Besanko and Thakor, 1987a, 1987b). This idea rests on two main assumptions about the lack of financial capital observed among small and micro-businesses, in particular during their start-up phase: (1) lenders cannot distinguish between high and low-risk borrowers, and borrowers cannot easily signal their own risk-taking behavior, (2) loan contracts are subjected to limited liability. According to this theory, credit is rationed when the amount lenders are willing to offer to borrowers is limited, or when no lender is willing to make a loan to a borrower. Despite the ongoing theoretical discussion, little consensus has been reached about whether credit rationing is an economically significant phenomenon (Berger and Udell, 1992).

With regard to the demand side of loan markets, there has been less theoretical research. Based on the asymmetric information approach, the Pecking Order Theory (Myers, 1984) claims that businesses adhere to a hierarchy of financing sources,

preferring internal financing when available, and preferring debt over equity when external financing is required.⁹ In addition to this work, we believe other disciplines provide evidence that can contribute to explaining borrower behavior. As an example, recent research in the neurosciences has found evidence that people who experienced negative outcomes in the recent past (such as previous unemployment), might in the near future tend to avoid higher risks in comparison to persons with positive experiences in the recent past. Applied to the small and micro-business sector, these findings allow for the conjecture that start-ups (in particular entrepreneurs coming out of unemployment) might try to avoid financial solutions that entail borrowed capital (for an article summarizing the emerging neuroscience research, see Bechara and Damasio, 2005).

2.2 Empirical Evidence on Small Business Finance

Small businesses are generally not publicly traded and are not required to release financial information. This lack of data is probably one of the main reasons why small business finance a decade ago had been ‘one of the most underresearched areas in finance’ (Berger and Udell, 1998).¹⁰ Since then in the US, research has grown tremendously in this field due to the influx of several different data sets - most importantly, the National Survey of Small Business Finances (NSSBF). It provides information on the income situation of small businesses (less than 500 employees) as well as the availability of different types of external finance. Using the NSSBF data, Bitler, Robb and Wolken (2001) assert that commercial banks are the dominant source of financial services for small businesses. The Office of Advocacy of the Small Business Administration (2003) finds little evidence that creditworthy borrowers faced substantial credit supply constraints, and Berger and Udell (1998) emphasize the importance of private loans for small business finance.

Harhoff and Körting (1998) were the first to replicate the NSSBF survey design in Germany. Their research concentrated on the nature of firm-bank relationships and their impact on collateral requirements. Funding needs were measured via the

⁹ Though initially designed to explain the financing practices of large corporations, it was soon recognized that this theory could also be applied to small businesses (Scherr, Sugrue and Ward, 1993).

¹⁰ Before that, several stand-alone studies analyzed financing experiences of small business in different US regions: van Auken and Carter (1989), Lamberson and Johnson (1992), Carter, van Auken and Harms (1992). Pettit and Singer (1985) were the first to provide a foundation for the development of research in the area of small business finance.

volume of credit lines in a static model. They conclude that lending is typically heavily concentrated on one or two financing institutions in the SME segment of the German economy. Hinz and Jungbauer-Gans (1999) compare the distribution of start-up capital between previously unemployed and previously employed business founders. They observe that previously employed founders raise a higher average sum of outside capital, rely more heavily on bank financing, and have better access to outside capital as compared to unemployed founders.

In a recent representative study (Caliendo, Kritikos and Wiessner, 2006) which focused on the impact of the bridging allowance on survival rates of formerly unemployed entrepreneurs in Germany (the focus of the present paper), 3,000 persons who founded a business in 2003 were surveyed in 2005. One question focused on the sums of the start-up capital employed during the first two years. Of these entrepreneurs, 53% reported needing no or very low funding (less than €5,000), 14% reported needing between €5,000 and €10,000, 28% reported needing between €10,000 and €50,000, and 5% reported needing more than €50,000.

Moreover, in a ‘Eurobarometer’ survey that analyzed SME finance not only in Germany but within the European Union, it was found that German SMEs seem to face greater hurdles in accessing loans compared to their European counterparts. When evaluating the quality of bank service in terms of consultancy, sector-specific know-how, general knowledge and expertise, and the suitability of the loan offers to customer needs, German banks fared below average.

Copisarow (2004), the founder of ‘Street UK’, a British microfinance institution, has provided a comprehensive practitioner’s field report on the use of microfinance in industrialized countries and an analysis of potential clients’ needs. She highlights important aspects of microfinance services: they should offer small amounts of capital, minimal waiting time for loan approval, high probability of receiving loans, easy subsequent access to loans, and clear and pre-explained terms and conditions. She concludes that the target market is largely made up of a segment of society that lies between the poor and the non-poor, that is, a population group that does not have access to loans from mainstream financial institutions but at the same time is not eligible for social welfare. Hence, non-financial business support services are needed

to create and enhance financial literacy and business knowledge. For the case of Germany, Jacob and Warg (1997) and Kritikos and Wiessner (2000) proposed the application of microlending technologies to the classic credit business.

2.3 Research Agenda

For the purpose of our study, we collected data on the demand side of this loan segment containing information (a) on the financing patterns of small and micro-business owners and (b) their attitudes towards typical microlending products. Using this information, we were able to establish a link between the existing literature on small business finance and financial marketing. While the former addresses funding needs and financial sources used to meet these needs, the latter analyzes the design of financial products suitable to the characteristics of small and micro-businesses.

Accordingly, we first examine the sources of capital available to these businesses, allowing us to answer the question of whether small and micro-businesses in Germany face liquidity constraints. Second, we group the respondents according to their preferences for microloans, taking into account various characteristics such as previous experiences with banks, product preferences, and funding patterns (i.e. the amounts of capital needed each year). We then identify potential microfinance clients, describe the characteristics of a loan product appropriate to their needs, and develop a marketing strategy for how MFIs can best reach such clients.

Testimonials from small business owners and the practical experiences of MFIs suggest that there is a large latent demand for microfinance services in the industrialized world (Copisarow, 2000; 2004). However, there has been no attempt so far to understand the structure of this demand empirically. The results derived from the present study will be highly relevant for existing European MFIs, and useful as well for MFIs planning to enter this market.

3. Small Business Finance in Germany

The German SME sector was comprised of almost four million businesses in 2004. More than 90% of them achieved a yearly turnover of less than €1 million, and 55% were run by self-employed persons (Piorkowsky and Fleißig, 2005). The average year-to-year survival rate of all businesses in recent years has been 92.5% (Constant

and Zimmermann, 2005). As to the number of new business start-ups, the available data sources produce a fairly inconsistent picture: for the year 2004, the number varies between 350,000 and 570,000 depending on the data source and it is estimated that about every second firm was created out of unemployment (Kritikos and Kahle, 2007). Hence, approximations of the absolute market size for microfinance services in Germany depend heavily on the data they are based on.

Inside and outside the formal banking system, there are various funding alternatives for small and micro-business owners. As the main provider inside the system, the *Kreditanstalt für Wiederaufbau* (KfW) offers several loan products aimed at small and micro-businesses in their start-up phase. Maximum maturities vary between five and ten years, and maximum loan amounts range between €10,000 and €50,000. According to the information of a staff member of KfW, in 2004 about 6,000 loans with a volume of up to €25,000 (the relevant segment of microfinance) have been extended.

In order to assist business owners displaced by corporate restructuring, many regional governments set up their own loan funds (in addition to the federal fund) - most of them outside the formal banking system. Despite the existence of such programs, only about 1,000 loans were actually approved by 22 different regional or local institutions (Habschick, Evers and Jung, 2004) Therefore, although there are several financing alternatives in particular for people founding a business out of unemployment through both commercial banks and other sources, only a small minority is actually making use of these services at present.

In this context, another support scheme must be mentioned: the 'bridging allowance', which is granted to previously unemployed business founders for a period of six months. This grant nearly equals the unemployment benefit the entrepreneur would have received had he or she remained jobless. Since these funds are generally available to all entrepreneurs starting a business out of unemployment, and since we interviewed only start-ups that used this benefit, we did not collect specific

information on the amount of the allowance in our survey. In the year of the survey, 2004, more than 180,000 persons received the bridging allowance.¹¹

4. Sample description

4.1 Overview of descriptive statistics

Our data is derived from a survey that provides information on the sources of finance of different small and micro-business owners during their first three years of operations. The survey was conducted between mid-October and December 2005 in the form of 213 telephone interviews with people who had become entrepreneurs during the past five years. The interviews were held using a standardized questionnaire which we had developed on the basis of 34 non-standardized personal interviews with small and micro-business owners, as well as through a focus group comprising seven participants. The majority of the questions were closed-ended, which enabled respondents to answer unambiguously. When necessary, the interviewer gave additional explanations.

The questionnaire was designed to collect a wide range of information and was divided into two main parts. The first contained questions pertaining to funding patterns and sources of capital during the first three years of business operations. The second part dealt with possible funding problems encountered and interest of respondents in microlending schemes. We interviewed one person per firm (the owner-entrepreneur), and in the case of team-run companies, only the main person in charge. Survey participants were selected from two client lists given by German start-up centers in the provinces of Hesse and Bavaria. The lists were comprised of clients who had taken part in coaching and seminars held in 2000 and 2003 in preparation for self-employment.¹² Consequently, at the time of the interview, all respondents were able to provide a consistently retrospective view of funding issues since all of them had been active in the market for three to five years.

¹¹ Between January 2003 and June 2006, the federal government introduced a second support measure (the so-called 'Me-Inc.') for previously unemployed business founders which was used by another 170,000 persons in 2004, but our sample does not include these benefit recipients. Both support schemes were replaced by a new scheme (the so called 'Gründungszuschuss') on July 1, 2006.

¹² In order to receive this kind of support the applicant had to be employed before s/he became unemployed. In our sample, more than two thirds of the respondents had been unemployed for less than six months which corresponds to the general figures for all founders out of unemployment (cf. IAB et al., 2005).

insert Table 1 about here

The sample was split into two main groups: those who had required outside finance during their first three years of operations (35% of the sample; we refer to them as ‘borrowers’) and those who had sufficient equity capital to finance their business (65% of the sample; we refer to them as ‘non-borrowers’).¹³ This distinction is made for two reasons: first, it seems appropriate to observe those persons separately, who were in need for outside finance in the past, as they represent the potential customer group for microloans. Second, when describing target group traits and product features of microloans, we will focus our analysis on the borrower group and ignore the non-borrowers as their statements are hypothetical in this respect. Our first observation concerns the market’s potential size: in their first three years of operations, only 35% of respondents were in need of outside finance, while the remaining 65% were able to do without.¹⁴

‘Outside finance’ is used here as an umbrella term to refer to all financial resources that do not constitute equity capital, for instance, bank loans and private loans obtained through friends or relatives.¹⁵ Table 1 presents some descriptive statistics for these groups. The variables are classified according to the attributes describing the business owner (owner-entrepreneur characteristics); those describing the business (business characteristics); and the funding needs of the firm for each of the first three years (financial characteristics).

Thirty-seven percent of the borrowers had started retail or crafts businesses, compared to a mere 11% of non-borrowers. Chi-square bivariate correlations reveal that retail ($p=.003$) and crafts enterprises ($p=.059$) exhibit significantly greater financial needs during the first three years than do other lines of business. This is

¹³ The high share of persons not in need for outside finance might be explained by the fact that they received the so called ‘bridging allowance’ for the first six months after the foundation of their business which grants them a basic income during this time.

¹⁴ Similar figures were obtained by Caliendo, Kritikos and Wiessner (2006) in a telephone survey of 2,500 West German start-ups that had used the bridging allowance in 2003 to launch business. In a similar study, Fraser (2005) found that in the UK, almost two out of three businesses had used personal savings as the principal source of finance to start the business, and one-third had received funds through a bank loan or a private loan.

¹⁵ We did not ask for VC or equity finance, as typically small and micro-businesses are not eligible for this kind of funding.

highly plausible given that most of these businesses require higher investments, for example, in the purchase of physical stock and machines.

4.2. Comparison of borrowers vs. non-borrowers

Funding needs of borrowers and non-borrowers during their start-up phase average out at about €15,000.¹⁶ Table 2 shows the funding needs of borrowers and non-borrowers for each of the three years in consideration. A clear separation can be observed (a) between year one and the two following years, as well as (b) between borrowers and non-borrowers. While more than 80% of the non-borrowers needed less than €10,000 in the first year, this was the case for only 47% of the borrowers: more than a quarter of these businesses required more than €25,000. The levels of funding needs in the two subsequent years differ significantly from the first, while years two and three both exhibit similar patterns. Obviously, in both groups, there is a high percentage of businesses that exhibit no funding needs at all after year one.

Thus, we see two kinds of investment patterns: one group of businesses requiring one-time funding, and a second group with recurring funding needs. We will examine this observation further in the next section, when we break down the market according to funding patterns.

insert Table 2 about here

Respondents were asked to specify the main intended use of the funds in each of the three years. Not surprisingly, a large percentage of businesses used the funds to cover start-up expenses such as IT infrastructure, office equipment, and materials for their first fiscal year. What is crucial to know for the appropriate design of microfinance products is that liquidity finance played an important role for the borrower group in the two following years: more than 50% reported liquidity gaps that had to be closed, for instance, the entrepreneur's own costs of living and pre-financing customer orders. Cases of 'emergency finance', such as back duties falling due, were also mentioned.

¹⁶ This figure is slightly lower than the average of about €20,000 reported by Hinz and Jungbauer-Gans (1999) for the group of unemployed business founders, while the study by Caliendo, Kritikos and Wiessner (2006) produced an average amount very similar to the present data.

4.3 Experiences when raising capital

A series of earlier studies found that raising capital poses a problem to young entrepreneurs (van Auken and Neeley, 1996; Blanchflower and Oswald, 1998; Hinz and Jungbauer-Gans, 1999; Eurobarometer, 2005). Figure 1 presents a more differentiated picture: 84% of business owners in the borrower group applied for a bank loan and almost two-thirds were successful, that is, they were able to cover their funding needs through an installment loan or an overdraft facility.¹⁷ Over 90% of business owners who had applied for a loan had a formal meeting with the bank and explained their business concept to a bank employee. Of those who visited a bank, 71.9% inquired about a loan, 12.5% about an overdraft facility and 15.6% about both. Among those who received bank loans, less than 5% of the subsample still required additional funds. Therefore, we may conclude that when banks do provide financial assistance to young businesses, the loans they provide are of sufficient size.¹⁸

What about businesses that reported no need for outside finance? Figure 1 approaches this question by first breaking this group in two: those who did and those who did not need outside finance. The right subsample on the intermediate level shows those business owners who did not apply for a bank loan, either because they did not need a loan to finance their business thanks to other sources, or because they were afraid of incurring debt. When explicitly asked if fear of indebtedness was an obstacle to applying for a loan, roughly one-third of all non-borrowers said yes.

insert Figure 1 about here

The subsample on the bottom right is comprised of business owners who did apply for a loan but were rejected. The reasons for rejection were unknown since banks usually do not disclose this information to applicants.¹⁹ In relation to the whole sample, slightly more than 10% of business owners were rejected by banks. One in

¹⁷ One possible reason for the high rate of loan approvals might be that all interviewed business owners had received professional training and coaching during the start-up phase of their business.

¹⁸ This coincides with the findings of Lamberson and Johnson (1992) who interviewed 140 firms on their financing experiences, of whom only 6% reported dissatisfaction with the amount of credit available.

¹⁹ Evidence from interviews with loan officers reveals that the main reasons for rejection are (i) low loan volumes, (ii) poor business concepts, (iii) redlining of certain industries (e.g. retail) and (iv) a low degree of borrower creditworthiness (IAB et al., 2005).

three of these rejected loan applicants reported a funding gap, while the rest got along without bank loans. This shows that liquidity constraints do exist, but on a limited scale.

Putting the observations of this subsection together, we conclude that two-thirds of the business owners who applied for a loan were successful. Among those who launched their business without a loan, we observed three reasons for doing so: These business founders either i) did not need outside capital, or ii) did not want to incur debts, or iii) their loan applications were rejected.

5. Empirical analysis

5.1 Market segmentation

We aimed to divide the borrowers into groups according to their expressed interest in microfinance products. For this purpose, we presented a microloan with the following properties to respondents:

- the loan value varies between €1,000 and €10,000;
- the term of each loan ranges between one and two years;
- there is no amortization-free period;
- the repayment scheme is fully flexible (comparable to an overdraft facility);
- applicants are informed of the credit decision within five days;
- interest rates amount to approximately 20% per annum;
- the loan officer acts as a partner to the client and problems are solved cooperatively,
- different kinds of collateral can be used.

These features are based on actual microloans offered in other European countries such as the UK, Poland, Russia, and Georgia.²⁰ It was mentioned explicitly in the interview that loans with these characteristics are not offered by traditional banks in these countries. Respondents were then asked whether they would ‘buy’ such a loan. If respondents rejected it, they were asked why. If they said that interest rates were the main reason, we presented a showcase calculation giving interest payments in absolute terms (a strategy commonly used by MFIs). Respondents were then asked if this display would change their minds. A dichotomous variable ‘target group’ was defined to take the value 1 if respondents were interested in the product and 0 if they were either not interested or not sure. In total, 41.3% of respondents said they would

²⁰ Specific product features are discussed, e.g., in Copisarow (2000), and for the transition economies in Armendáriz de Aghion and Morduch (2000) and Vigenina and Kritikos (2004) among others.

have accepted such a microloan. These respondents are therefore what we term as our target group.²¹

5.2 Tests and Results

(1) Is target group membership correlated to preceding experiences in bank meetings?

In this section, we explore the experiences that potential microloan clients had during their bank meetings. Respondents were asked to rate the service quality they experienced during their most recent bank meeting on a Likert-type scale varying from 1 (strongly disagree) to 5 (strongly agree). We expected to observe a strong correlation between negative experiences with banks and target group membership.

To analyze our assertion, a Mann-Whitney U test is used. We further expected that having received a bank loan would predispose a potential micro-business owner to evaluate his or her meetings with the bank positively. This rationale is psychological: a favorable meeting outcome leads to a positive evaluation. On the other hand, the bad experience of not receiving a loan may result in a negative evaluation due to the unsatisfactory outcome. To test this assumption, a variable ‘received loan’ is defined to contain information on the outcome of bank meetings. It takes the value 1 for those who received a loan and 0 for those who did not.

Lower mean ranks for those who did not receive a loan indicate that the sum of the ranks must be smaller than the sum of the ranks for those who did. Table 3 illustrates the results. The mean ranks indicate that micro-business owners who did not receive a loan rate the bank’s customer service lower than those who did. The z-value of -3.14 reveals that this result is significant at the 0.1% level.

²¹ This target group classification (‘accepters’: potential clients who are interested in micro-loans vs. ‘rejecters’: business owners who are not) follows the logic of the consideration set theory. Complex decision processes like the acquisition of capital require a reduction of alternatives in order to reach cognitive relief. The decision maker, in our case the micro-business owner, only takes those alternatives into account that are mentally stored in his consideration set, i.e. that he is acquainted with (which in our study is assured by describing the microloan product) and that are valued positively (Crowley and Williams, 1991). If micro-loans are not stored in the consideration set of a potential customer because of the negative valence attached to it, he will reject them outright. A consideration set is dynamic, however. Certain alternatives can be upgraded from negative to positive in response to specifically designed marketing measures, which we used by presenting interest payments in absolute terms.

insert Table 3 about here

With all differences in the mean ranks being significant (except for the last item, which only shows marginal significance at the 10% level), it is evident that unsuccessful loan applicants tended to rank their banks' service quality significantly lower than their successful counterparts. This confirms the psychological bias assumption. We conclude that if we want to relate microloan affinity to how recipients rated bank service quality, we must take this correlation into account. Therefore, in the following we will concentrate only on the group of applicants who *received* a loan and thereby adjust for the above-mentioned psychological bias. Among the group of successful bank loan applicants, we differentiate the target group dummy into persons who were interested in a microloan and those who were not. Again, we apply a Mann-Whitney U test. Table 4 presents the results.

insert Table 4 about here

The findings from the rank-sum test confirm our initial expectation. Business owners who showed an interest in microloan products had significantly worse experiences during their bank meetings than the other group, even if both groups received a bank loan. Their evaluation of the meetings was significantly less positive, and they did not feel that they had been taken seriously, as fully fledged clients. Furthermore, their responses differed greatly regarding whether bank employees understood their business concepts. Also, these applicants did not feel well-informed on the terms and conditions of the possible loan products.

Result 1: Prior negative experiences with banks are positively correlated with target group membership, even if the business owner previously received a loan from a bank.

In this context we should emphasize that the causality between the two variables is ambiguous. It seems, however, plausible to assume that banks are usually not interested in extending small or micro loans to businesses, and that this is then

reflected in the service quality they offer these applicants. Following this line of argumentation, target-group membership would also be a determinant to perceived service quality.

(2) What are the central product features?

Microloans are mainly characterized by i) flexible repayment schemes after the loan has been disbursed, ii) fast access to loans and iii) individual support from loan officers (Copisarow, 2000). This in turn implies higher interest rates than the usual market rate. To find out which product features are important to potential microloan clients, we provided them with a set of statements and asked to rate them on a scale from 1 (strongly disagree) to 5 (strongly agree). We employ a Mann-Whitney U test to analyze group-specific differences. Table 5 presents the results.

insert Table 5 about here

The rank-sum test reveals two significant differences between the subsamples. First, business owners who showed an interest in microloans stated that they operate in segments that demand fast access to loans. Second, they were willing to pay higher interest rates for faster access to loans. Product features like flexible repayment schemes, amortization-free periods, and individual support from a loan officer are clearly not important enough to allow distinctions to be drawn between groups.

Finally, we analyzed the correlations between bank assessments and product features. Our results show that applicants who gave an overall bad rating of bank meetings were actually willing to pay higher interest rates for loans. The same holds for those who stated that they had not been treated as fully fledged clients. Experiences from the interviews with the members of the focus group show that future clients want to be assured of a high probability of receiving a loan. High rejection rates tend to deter potential clients from applying for loans and information about high rejection rates spreads among potential clients in a very short time span.

Result 2: Borrowers who are interested in microloans are prepared to pay higher interest rates if, in return, they have high chances of receiving the loan and if the access to the loan is fast and easy.

(3) Do target group members exhibit a typical financing pattern?

Figure 2 depicts the financing patterns for target group and non-target group members. There is a clear discrepancy between the funding needs of the two groups in year one. Looking at the three-year trend, the target group exhibits fairly constant funding needs, while the other group reports higher funding needs in the first year and rather low needs in years two and three. An ANOVA test was conducted to compare the groups' funding needs in each year, yielding a (weakly) significant F value only for the first period ($p=.09$). We presume that a lower level of start-up finance is a distinguishing feature of the target group.

insert Figure 2 about here

We conclude that borrowers interested in microloan products exhibit a specific financing pattern characterized by a fairly constant need for funding. Unlike non-target group members, these clients reported needing an average of between €6,000 and €12,000 per year over the three-year period.²² This is a possible benchmark loan size for microloans. Funding needs of non-target group clients, in contrast, average €19,000²³ in year one and drop to far below €5,000 in the subsequent two years. The higher funding volume in the first year might indicate that these borrowers have received bank loans that are generally approved only beyond a certain amount. In this case, banks are usually more willing to finance subsequent loans. Our analysis also showed that these borrowers were granted overdraft facilities significantly more often than target group members in the years after founding the business.

Equity ratios of the two groups display a palpable discrepancy: target group members continuously exhibit lower equity ratios than non-target group members. An ANOVA test confirms statistically significant differences only for the first year ($p=.02$). As a certain amount of equity capital is the necessary precondition for receiving a bank loan, it is quite probable that target group members are largely excluded from the formal banking system. Therefore, microloans present a viable funding alternative and higher interest rates do not deter them.

²² Figure 2 is adjusted for seven outliers within the borrower group as they distorted the means quite heavily (including the outliers, means oscillate between €15,000 and €20,000). The 75th percentile including outliers is € 25,000.

²³ The average is € 32,000 when we do not adjust for outliers.

We summarize that compared to non-target group members, microloan applicants have i) lower funding needs during the start-up phase, ii) more evenly distributed funding needs, and iii) less equity. Since most existing German MFIs offered loan products only to start-ups in year one, this observation probably explains the exceptionally low demand for these products.

(4) A model for determining target group membership

We developed a model for the borrower group that enables us to determine relevant factors affecting target group membership. For this purpose, a binary logit regression was used with ‘target group’ as the dependent variable. In Model A, personal explanatory variables were applied. The business variables were added to perform a second Model B. Finally, an extended Model C was estimated, in which financial characteristics of the firm were included. With this approach, the advantages of multivariate methods are exploited, as measured effects might disappear if they are controlled for alternative effects of other explanatory variables. Nagelkerke R^2 and Cox & Snell R^2 provide estimates of good overall model fit for each of the specifications.

Table 6 reports the estimation results of the three models employed. The business owner’s age does not have a significant impact on target group membership. The same holds for gender, which is only weakly significant in Model C. Foreigners have a higher propensity to be interested in microloan products, which could be due to the fact that they are more often excluded from the banking system and therefore depend more heavily on alternative funding. Blanchflower et al. (2003) show similar empirical evidence for this observation when analyzing small businesses’ access to the US credit market. Concerning the education variables, master craftsmen have a significantly lower propensity to belong to the target group, which is indicated by the negative sign of the dummy. They usually have higher funding needs during the start-up period due to the need for more expensive equipment than, for example, businesses in the service sector.

insert Table 6 about here

With respect to the business variables, we observe that firms operating in the retail business have a strong propensity towards microloans. This coincides with our findings that potential microloan clients need fast access to funds. Retail business is traditionally characterized by near-term funding needs, often triggered by the need to pre-finance inventory (van Auken and Carter, 1989). The other industry dummies have no significant bearing on target group membership. The variable ‘team foundation’ shows a weak positive significance in Model B when controlling for financial characteristics. We therefore conclude that being a retail business is the only relevant firm characteristic that determines target group membership - a result that coincides with the evidence from many countries after microfinance products were introduced (Kritikos and Vigenina 2005) and with the anecdotal evidence that owners of firms in the retail business sector are “redlined” by commercial banks.

Model C contains a set of dummies providing information on the firm’s funding characteristics. Businesses that received a private loan during their first three years of operations tended to show a weak significant interest in micro-loans. Anecdotal evidence from the interviews confirms that people who have frequently received funding through private loans are reluctant to borrow from friends and relatives in the future, as this implies a certain kind of social dependency. Applicants who had previously received a bank loan are less likely to belong to the target group due to their preference for the lower interest rates offered by banks. This confirms the conjecture we made when analyzing funding patterns. The only caveat to this finding was detected in Section 5.2(1): borrowers who experienced poor bank service quality showed a significantly higher interest in microloan products. Finally, the dummy ‘funding needs in year two or three’ does affect target group membership positively, but with a weak significance. This validates our financing pattern analysis, which showed rather constant funding needs for the target group and therefore an elevated need for finance after foundation of the business. Receiving an overdraft and a need for liquidity finance do not affect target group membership.

Result 3: Business owners who are interested in microloan products can be found among foreign and retail business owners as well as among those who had previously received private loans. Those who needed finance in the years after business foundation were also more likely to belong to the target group.

6. Implications for a marketing strategy for MFIs

Our analysis leads us to a marketing strategy that addresses two issues: first, findings concerning past banking experiences and product features imply that positioning MFIs to be different from commercial banks is crucial. Business owners interested in microloan products report negative experiences with banks that may drive them away from commercial banks when shopping for loans. Furthermore, these customers value speed and flexibility in the process of receiving loans. Given the rather slow approval processes of banks, this is a unique selling proposition for MFIs.

Apart from this general strategic positioning, we can derive the criteria that define a typical MFI target group. When looking at the results of our target group membership model, a distinctive pattern appears: the microloan target group is typically made up of retail business owners, foreign business owners, and persons with a loan history on the private market rather than the bank market. Thus, MFIs could start by targeting retail businesses, offering microloans that respond to their special business needs. Furthermore, a demand for microloans also arises in the periods *after* a business has been founded. Therefore, it makes sense to target microfinance promotion at businesses that have been operating for more than one year. It has to be emphasized that such a strategy of focusing on more experienced business owners corresponds to the needs of MFIs to reduce their lending risks. It is much easier for loan officers to differentiate between low and high-risk potential clients if these entrepreneurs have already passed the start-up period and gathered experience in their respective markets.

Furthermore, the loan-granting process should be as 'non-bank' as possible, that is, it should give customers the feeling that their needs are understood and that they are respected as fully fledged clients. Given the importance of the physical environment (Baker, Berry and Parasuraman, 1988; Baker, Grewal and Parasuraman, 1994), it might even make sense to design MFI offices differently from bank offices. This idea is supported by our interviews with the members of the focus group, who expressed the feeling of having been treated badly by loan officers at several local MFIs (that were publicly financed) - similar to the perceptions of survey participants about conventional banks.

This result is also meaningful for the design of appropriate micro-lending products. On the one hand, it is crucial that loans have a high probability of being approved: a commonly used rule of thumb is a 90% approval rate. On the other hand, it is important as well to keep the supply-side problems in mind that we mentioned briefly in the introduction, for example, adverse selection and moral hazard. To meet both challenges, micro-lending products need to be designed in such a way that a high self-selection process takes place, identifying potential members of the target groups and at the same time attracting as many creditworthy persons as possible.

We can further conclude that marketing by a specially designed MFI will be successful only if it employs well-trained loan officers who know how to offer high-quality customer services and can guarantee a fast, efficient process of loan screening and approval. These insights also reveal why many successful MFIs in Eastern Europe do not employ former bankers as loan officers: instead, they prefer loan officers with a background in psychology and no previous professional experience in the traditional banking sector.

7. Conclusion

It almost goes without saying that small and micro-businesses have more difficulties in getting access to outside finance than larger firms do. The loans they require are too small to attract commercial banks, and small business owners are less able to signal their risk-taking behavior than managers of larger companies. In response to this need, during the last decade, about two dozen local MFIs have been set up in Germany offering loan products aimed at start-ups. However, their success measured in terms of outreach remained far below expectations.

To better understand the demand side of this market segment in Germany, we conducted a survey of 213 entrepreneurs and interviewed them about their funding needs and their affinity to a typical microlending product. As to the approximate size of the market, 65% of the business owners in our sample reported that they were able to operate without outside finance. Thus, it might be true as suggested in the introduction that the majority of small and micro-business owners are excluded from access to small loans. However, our survey reveals that a large proportion of these

small business owners did not even ask for outside finance. Further research should therefore be directed at finding out the reasons why this is so.

Among the remaining 35% needing outside finance, two out of five were interested in a microloan, even if annual interest rates amounted to 20%. These people were termed as the target group. As we found two different financing patterns, we are able to further specify the target group: non-members needed funds particularly during their start-up phase, while target group members exhibited fairly constant funding needs over the first three years of operations and significantly lower funding needs than the former group in year one. Our survey also shows that there are certain businesses that are particularly interested in microlending products, among them foreign and retail business owners, persons who received loans from their private network, and persons who were dissatisfied with the service quality offered by banks, where they had felt patronized by loan officers.

With respect to the general impression mentioned in the introduction that most entrepreneurs are excluded from the credit market, we are able to give a more differentiated answer: it is true that the loan applications of some start-ups were rejected by more than one bank, but in our survey, these were only about 10% of the complete sample. It is also true that only about 20% of the young entrepreneurs in our sample financed their business with a loan during the start-up period. However, as our analysis shows, these figures do not allow for the conclusion that 80% of the entrepreneurs face financial problems during their start-up period because they are excluded from the credit market.

Our research, therefore, gives evidence that by targeting only start-ups the local government-owned or government-financed MFIs unnecessarily confined their target markets. Furthermore, the loan products they offered were inappropriate to the demands of their potential clients. For the future, federal and local government activities should be refocused. Instead of developing own products (which are then distributed through local MFIs) or the provision of loan capital with heavy restrictions on the access to their special loan funds, the government should concentrate on the provision of risk capital available without any restrictions except

for a maximum loan size and outreach-oriented targets and incentives to those banks and MFIs who aim to use these special funds.²⁴

As a result, the following marketing strategies appear crucial: first, microlending products should be addressed specifically to the target group, namely, those firms labeled in this paper according to their financial needs as micro-businesses. These businesses are not necessarily in the start-up phase but have been operating for some time. Second, instead of focusing on young entrepreneurs in general - which does not allow for the development of any specific product design - micro-businesses should be targeted through product features designed specifically for the subgroup that we identified. Third, the decisive features to create a demand for microlending products even at higher interest rates are: quick and easy access to loans, and an environment which does not remind the customers of their last bank visit.

In order to provide such good service quality to their customers, MFIs will have to employ professionally trained loan officers who are able to put the crucial product features into action and to carry out effective screening procedures at the same time in order to maintain a low percentage of high-risk clients. Only then will an MFI successfully attract customers and be able to promote its unique advantages over commercial banks. Since many of the potential customers are not necessarily excluded from the traditional banking system, it also has to be emphasized that MFIs might gamble away their credibility in a very short period of time (as some already have) if their loan officers behave similarly to those at commercial banks.

We conclude that, although smaller than expected, there is a market for microlending in Germany. It has potential to grow especially if there is a latent demand among the astonishingly high share of business owners who reported no need for outside finance (in particular among those who are currently afraid of applying for a loan). This latency could be explained by a lack of awareness on the part of the business owners of existing microlending options: with the right products already in the market, they merely have to look for the products offering the characteristics they might not have been able to articulate (see also Earl and Potts, 2000). One possible

²⁴ The Small Business Administration (SBA) in the US plays certainly a similar role to the MFIs, and the German KfW has recently started to work in the same direction.

step would therefore be to increase advertising efforts to raise awareness among potential clients.

References

- Ang, J. (1992). 'On the Theory of Finance for Privately Held Firms', *The Journal of Small Business Finance*, Vol. 1(3), pp. 185-203.
- Armendáriz de Aghion, B. and Morduch, J. (2000). 'Microfinance Beyond Group Lending', *Economics of Transition*. Vol. 8(2), pp. 401-420.
- Armendáriz de Aghion, B. and Morduch, J. (2005). 'The Economics of Microfinance', Cambridge: The MIT Press.
- Baker, J, Berry, L. and Parasuraman, A. (1988). 'The Marketing Impact of Branch Facility Design', *Journal of Retail Banking*, Vol. 10(2), pp. 33-42.
- Baker, J., Grewal, D. and Parasuraman, A. (1994). 'The Influence of Store Environment on Quality Inferences and Store Image', *Journal of the Academy of Marketing Science*, Vol. 22(4), pp. 328-339.
- Bechara, A. and Damasio, A. (2005). 'The Somatic Marker Hypothesis: A Neural Theory of Economic Decision', *Games and Economic Behavior*, Vol. 52, pp. 336-372.
- Berger, A. and Udell, G. (1992). 'Some Evidence on the Empirical Significance of Credit Rationing', *Journal of Political Economy*, Vol. 100(5), pp. 1047-1077.
- Berger, A. and Udell, G. (1998). 'The Economics of Small Business Finance: The Roles of Private Equity and Debt Markets in the Financial Growth Cycle', *Journal of Banking and Finance*, Vol. 22(6-8), pp. 613-73.
- Besanko, D. and Thakor, A. (1987a). 'Collateral and Rationing: Sorting Equilibria in Monopolistic and Competitive Credit Markets', *International Economic Review*, Vol. 28(3), pp. 671-89.
- Besanko, D. and Thakor, A. (1987b). 'Competitive Equilibrium in the Credit Market under Asymmetric Information', *Journal of Economic Theory*, Vol. 42(1), pp. 167-82.
- Bitler, M., Robb, A. and Wolken, J. (2001). 'Financial Services Used by Small Businesses: Evidence from the 1998 Survey of Small Business Finances', *Federal Reserve Bulletin*, Vol. 87(4), pp. 183-205.
- Blanchflower, D., Levine, P. and Zimmerman, D. (2003). 'Discrimination in the Market for Small Business Credit', *The Review of Economics and Statistics*, Vol. 85(4), pp. 930-43.
- Blanchflower, D. and Oswald, A. (1998). 'What Makes an Entrepreneur?', *Journal of Labor Economics*, Vol. 16(1), pp. 26-60.
- Caliendo, M., Kritikos, A. and Wiessner, F. (2006). 'Existenzgründungsförderung in Deutschland, Zwischenergebnisse aus der Hartz-Evaluation', *Journal for Labor Market Research*, Vol. 39 (3-4), pp. 503-529.
- Carter, R., van Auken, H. and Harms, M. (1992). 'Home-based Business in the Rural United States Economy: Differences in Gender and Financing', *Entrepreneurship & Regional Development*, Vol. 4(3), pp. 245-57.

- Constant, A., Zimmermann, K. (2005). 'Self-Employment Dynamics Across the Business Cycle: Migrants Versus Natives.', *IZA Discussion Paper* 1386.
- Copisarow, R. (2000). 'The Application of Microcredit Technology to the UK – Key Commercial and Policy Issues', *Journal of Microfinance*, Vol. 2(1), pp. 13-42.
- Copisarow, R. (2004). 'Street UK – A Micro-finance Organisation. Lessons Learned From Its First Three Years' Operations', London.
- Crowley, A. and Williams, J. (1991). 'An Information Theoretic Approach to Understanding the Consideration Set/Awareness Set Proportion', *Advances in Consumer Research*, Vol. 18(1), pp. 780-787.
- Eurobarometer (2005). 'SME Access to Finance', *Flash Eurobarometer* 174.
- Earl, P.E. and Potts, J. (2000). 'Latent Demand and the Browsing Shopper', *Managerial and Decision Economics*, Vol. 22(3-4), pp. 111-122.
- Evers, J. (2002). 'Kredite für Kleinunternehmen, Effiziente Betreuungssysteme von Banken.', Bankakademie, Frankfurt am Main.
- Fraser, S. (2005). 'Finance for Small and Medium-Sized Enterprises. A Report on the 2004 UK Survey of SME Finances', Centre for Small and Medium-Sized Enterprises, Warwick Business School.
- Habschick, M., Evers, J. and Jung, M. (2004). 'Finanzierung im Kleinen', Hamburg.
- Harhoff, D. and Körting, T. (1998). 'Lending Relationships in Germany – Empirical Evidence from Survey Data', *Journal of Banking & Finance*, Vol. 22(10-11), pp. 1317-53.
- Hillier, B. and Ibrahimo, M. (1993). 'Asymmetric Information and Models of Credit Rationing', *Bulletin of Economic Research*, Vol. 45(4), pp. 271-304.
- Hinz, T. and Jungbauer-Gans, M. (1999). 'Starting a Business After Unemployment: Characteristics and Chances of Success (Empirical Evidence from a Regional German Labour Market)', *Entrepreneurship & Regional Development*, Vol. 11(4), pp. 317-33.
- IAB, DIW, GfA, sinus and infas (2005). 'Evaluation der Maßnahmen zur Umsetzung der Vorschläge der Hartz – Kommission – Modul 1e: Existenzgründungen', Berlin, June 2005, BMAS (Research Report of the Federal Ministry for Labor and Social Affairs).
- Jacob, H.-R. and Warg, M. (1997). 'Microlending-Ansätze für das klassische Kreditgeschäft', *Die Bank*, Vol. 6, pp. 335-37.
- Jaffee, D. and Russel, T. (1976). 'Imperfect Information, Uncertainty, and Credit Rationing', *Quarterly Journal of Economics*, Vol. 90, pp. 651-66.
- Kritikos, A. and Kahle, K. (2007). 'Kapitel I: Das Gründungsgeschehen' in: IAB, DIW, Sinus, GfA und infas: Evaluation der Maßnahmen zur Umsetzung der Vorschläge der Hartz-Kommission. Arbeitspaket 1: Wirksamkeit der Instrumente, Modul 1e: Existenzgründungen, Bericht 2006. BMAS, Berlin, S. 40-90, Berlin.
- Kritikos, A. and Vigenina, D. (2005). 'Key Factors of Joint-Liability Loan Contracts', *Kyklos*, Vol. 58(2), pp. 213-238.

- Kritikos, A. and Wiessner, F. (2000). 'Ein zweiter Kreditmarkt für eine zweite Chance', *Perspektiven der Wirtschaftspolitik*, Vol. 1, pp. 357-378.
- Lamberson, M. and Johnson, C. (1992). 'Financing Experiences of Small Manufacturers in Arkansas: Survey and Analysis', *Economic Development Review*, Vol. 10(2), pp. 62-66.
- McMahon, R., Homes, S., Hutchinson, P., and Forsaith, D. (1993). 'Small Enterprise Financial Management: Theory and Practice', Harcourt Brace: Australia.
- Myers, S. (1984). 'The Capital Structure Puzzle', *Journal of Finance*, Vol. 39(3), pp. 575-592.
- Nagarajan, G. (2000). 'Fundusz Micro, Poland', *Micro Banking Bulletin*, Vol. 4, pp.1-7.
- Office of Advocacy, U.S. Small Business Administration (2003). 'Financing Patterns of Small Firms: Findings from the 1998 Survey of Small Business Finance', Office of Advocacy, Washington D.C.
- Pettit, R. and Singer, R. (1985). 'Small Business Finance: A Research Agenda', *Financial Management*, Vol. 14(3), pp. 47-60.
- Petty, J. and Bygrave, W. (1993). 'What Does Finance Have to Say to the Entrepreneur?', *Journal of Small Business Finance*, Vol. 2(2), pp. 125-38.
- Piorkowsky, M.-B. and Fleißig, S. (2005). 'Existenzgründungen im Kontext der Arbeits- und Lebensverhältnisse in Deutschland – Eine Strukturanalyse von Mikrozensusergebnissen – Aktualisierung der Sonderauswertung der Mikrozensen 1985 bis 2001 für die Jahre 2002 bis 2004', Statistisches Bundesamt, Bonn.
- Reifner, U. (2003): Microlending – a Case for Regulation, IFF-Hamburg.
- Scherr, F., Sugrue, T. and Ward, J. (1993). 'Financing the Small Firm Start-Up: Determinants of Debt Use', *Journal of Small Business Finance*, Vol. 3(1), pp. 17-36.
- Stiglitz, J. and Weiss, A. (1981). 'Credit Rationing in Markets with Imperfect Information', *American Economic Review*, Vol. 71(3), pp. 393-410.
- van Auken, H. and Carter, R. (1989). 'Acquisition of Capital by Small Firms', *Journal of Small Business Management*, Vol. 27(2), pp. 1-9.
- van Auken, H. and Neeley, L. (1996). 'Evidence of Bootstrap Financing Among Small Start-Up Firms', *Journal of Entrepreneurial & Small Business Finance*, Vol. 5 (3), pp. 233-48.
- Vigenina, D. and Kritikos, A. (2004). 'The Individual Micro-Lending Contract: Is it a Better Design Than Joint-Liability?', *Economic Systems*, Vol. 28(2), pp. 155-176.
- Woller, G. (2002). 'From Market Failure to Marketing Failure: Market Orientation as the Key to Deep Outreach in Microfinance', *Journal of International Development*, Vol. 14(3), pp. 305-24.

Appendix

Table 1: Descriptive Statistics for the two subsamples.

Variable	Borrowers		Non-borrowers		Chi ² Values
	N	Mean	N	Mean	
Owner-Entrepreneur Characteristics					
Female	76	0.41	137	0.39	0,38
Foreigner	76	0.09	137	0.02	5.39**
Education					
Academic	76	0.42	137	0.53	2.14
Master craftsman	76	0.26	137	0.20	1.24
Age	76	42.68	137	44.80	-
Preceding period of unemployment (months)	73	9.22	129	8.76	36.78**
Business Characteristics					
Retail	76	0.13	137	0.04	6.75***
Crafts	76	0.24	137	0.07	12.94***
Liberal profession	76	0.13	137	0.20	1.46
No. of employees	76	1.13	137	0.31	17.46**
Team foundation	76	0.17	137	0.07	5.86**
Financial Characteristics					
Funding needs year 1 ('000 €) ^a	66	20.17	130	7.92	-
Funding needs year 2 ('000 €) ^a	66	5.3	130	1.97	-
Funding needs year 3 ('000 €) ^a	66	5.3	130	1.33	-

*** significant at a 1% level ** significant at a 5% level * significant at a 10% level ('-' indicates that more than 10% of cells have expected count less than 5)

^a adjusted for outliers (funding requirements exceeding € 100.000 in at least one year)

Table 2: Comparison of funding needs between borrowers (B) and non-borrowers (NB).

	Year 1		Year 2		Year 3	
	B (N=76)	NB (N=137)	B (N=76)	NB (N=137)	B (N=76)	NB (N=137)
None	2.6	13.1	50.0	65.0	52.6	65.7
Less than €5,000	19.7	43.8	25.0	24.1	26.3	26.3
> €5,000 – €10,000	25.0	24.1	11.8	8.0	9.2	6.6
> €10,000 – €25,000	23.7	14.6	9.2	1.5	6.6	1.5
> €25,000 – €50,000	19.7	3.6	1.3	1.5	2.6	0
More than €50,000	9.2	0.7	2.6	0	2.6	0

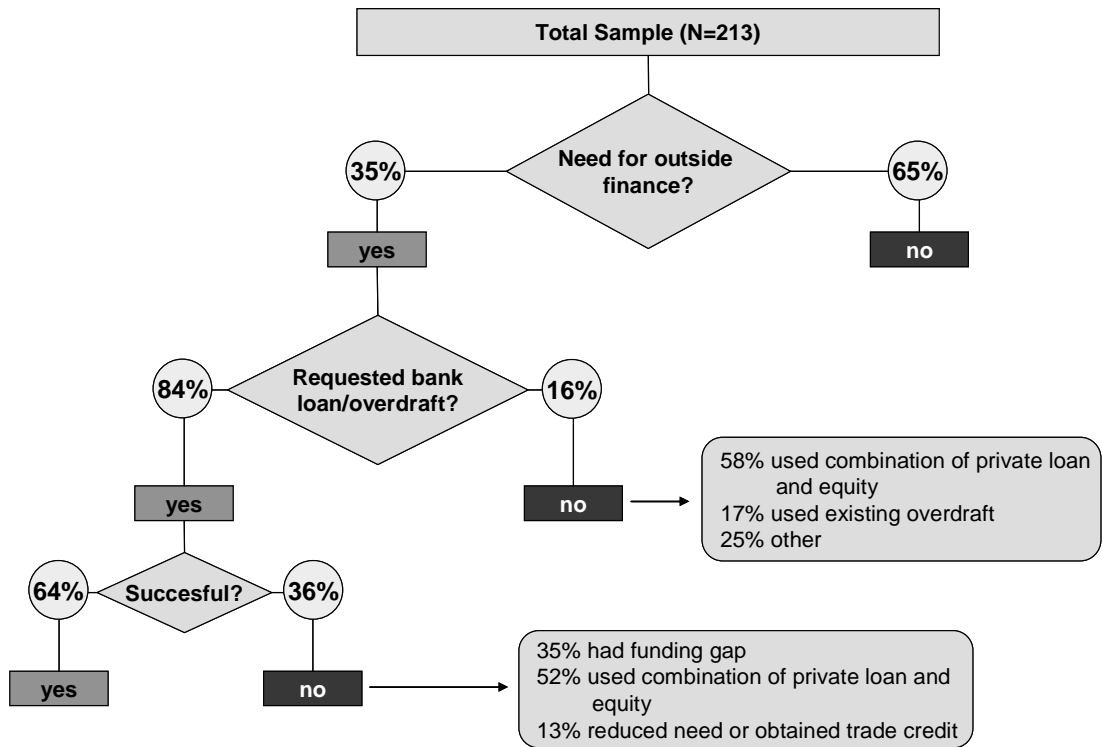


Figure 1: Overview of the subsamples.

Table 3: Comparison of unsuccessful (U) and successful (S) loan applicants (N=74).

Statements	Mean Ranks		z-value (Prob > z)
	U	S	
All in all, I had a positive impression of my meeting(s) with the bank(s).	24.62	49.27	-3.14 (0.001)
I felt I was taken seriously and treated as a fully fledged client.	22.45	52.13	-3.70 (0.000)
I had the feeling that the loan officer to whom I spoke understood my business plan.	27.58	47.65	-2.31 (0.021)
I received competent advice concerning relevant products.	25.13	48.99	-2.74 (0.006)
I received comprehensive information on all terms and conditions.	32.72	39.97	-1.85 (0.065)

Table 4: Comparison of target group (T) and non-target group members (NT) who received a loan (N=40).

Statements	Mean ranks		z-value (Prob > z)
	T	NT	
All in all, I have a positive impression of my meeting(s) with the bank(s).	13.91	22.61	-2.47 (0.014)
I felt I was taken seriously and treated as a fully fledged client.	14.05	22.35	-2.27 (0.023)
I had the feeling that the loan officer to whom I spoke understood my business plan.	15.55	21.65	-2.03 (0.042)
I received competent advice concerning relevant products.	18.91	20.77	-0.99 (0.323)
I received comprehensive information on all terms and conditions.	16.14	21.63	-1.71 (0.088)

Table 5: Comparison of target group members (T) and non-target group members (NT) (N=74).

Statements	Mean ranks		z-value (Prob > z)
	T	NT	
I am agreeable to accepting higher interest rates when taking a loan if this allows more flexibility in repayment schemes.	37.90	37.21	-0.28 (0.8)
In my line of business, it is crucial to receive a loan rapidly when necessary.	48.34	28.29	-2.4 (0.02)
It matters to me to pay no amortizations, especially in the first months after borrowing.	39.10	35.64	-0.92 (0.36)
I am willing to pay higher interest rates for faster access to loans.	44.17	31.62	-2.02 (0.04)
Individual support given by the contact person is as important to me as to the terms of a loan.	36.79	37.90	-0.25 (0.82)

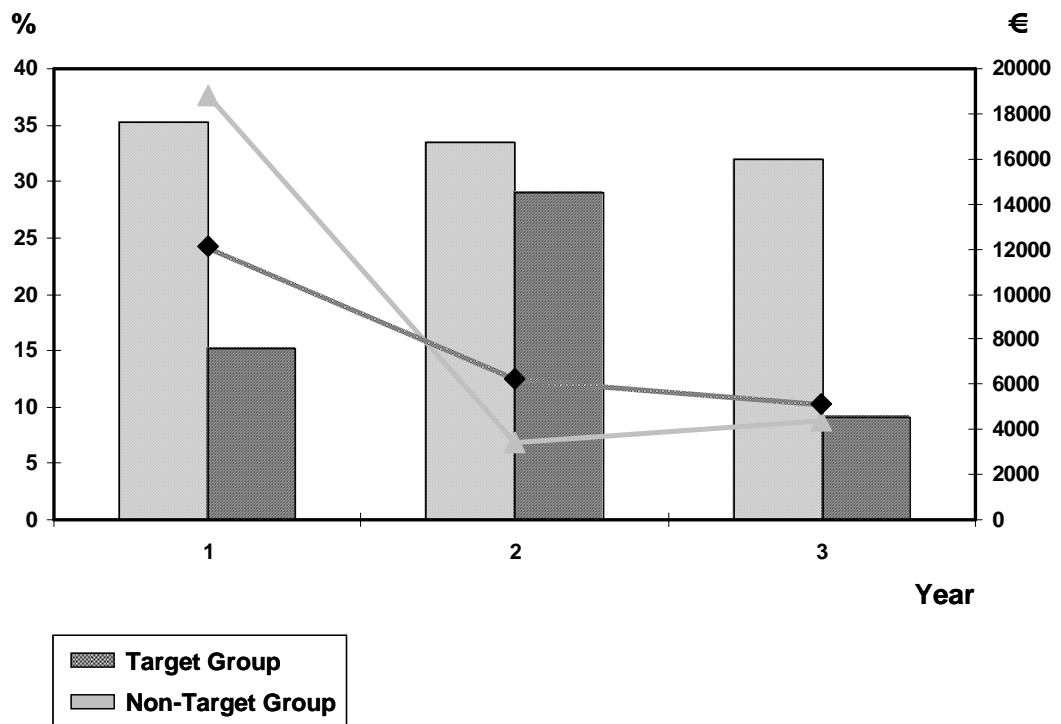


Figure 2: Funding needs (lines, right scale) and equity ratios (bars, left scale) of target group and non-target group members adjusted for outliers with funding needs exceeding €50,000 (N=69).

Table 6: Binary Logit Estimation of determinants of target group membership.

Explanatory Variables	Model A	Model B	Model C
Gender (female=1)	-0.63 (0.64)	-0.97 (0.77)	-2.83 (1.63)*
Age	-0.03 (0.04)	0.02 (0.05)	-0.03 (0.08)
Nationality (foreigner=1)	2.47 (1.54)*	2.44 (1.44)*	5.04 (2.46)**
Education (academics=1) (master craftsmen=1)	-0.24 (0.67) -3.29 (1.24)***	-0.07 (0.87) -3.57 (1.46)**	1.91 (1.78) -6.33 (3.07)**
Preceding period of unemployment (months)	0.01 (0.03)	-0.01 (0.03)	0.08 (0.07)
Line of business (retail=1) (crafts=1) (lib. professions=1)		2.67 (1.24)** 0.87 (1.05) -0.09 (0.99)	6.76 (2.64)*** 0.72 (1.85) 0.08 (1.28)
Team foundation		2.03 (1.11)*	3.44 (2.15)
Received private loan			2.46 (1.40)*
Received bank loan			-4.85 (1.96)**
Received overdraft			-1.03 (1.66)
Liquidity finance			-2.71 (1.90)
Funding needs in year 2 or 3			2.64 (1.64)*
Constant	1.38 (1.78)	-1.34 (2.26)	0.43 (3.62)
Nagelkerke R^2	0.345	0.485	0.754
Cox & Snell R^2	0.254	0.357	0.556
Model Chi^2	50.28	27.4	18.21
Number of observations	75	75	75

Standard errors in parentheses

*** significant at a 1% level ** significant at a 5% level * significant at a 10% level