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ACCESS TO MICROCREDIT AND ITS IMPACT ON THE PERFORMANCE OF SMALL AND MEDIUM-SIZED ENTERPRISES: A LITERATURE REVIEW[i]

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Résumé:
Les petites et moyennes entreprises (PME) jouent un rôle crucial dans la croissance économique en créant des emplois, en générant des revenus et en stimulant la croissance. Cependant, l'accès au financement des PME est inférieur à celui des grandes entreprises, ce qui entrave la croissance et le développement des PME. Les limites des institutions financières formelles à fournir des crédits aux groupes à faibles revenus tels que les PME ont donné naissance aux programmes de microfinance. Ainsi, l'accès au microcrédit reste le défi majeur pour la plupart des PME. Dans ce contexte, cette étude vise à examiner les théories et pratiques pertinentes concernant les marchés du crédit, l'accessibilité et l'impact du microcrédit. Les PME sont limitées dans l'accès au crédit formel car les institutions financières n'accordent pas de crédit en raison de l'asymétrie de l'information, des coûts de traitement élevés et de l'insuffisance de garanties de valeur. Cet article passe également en revue les méthodologies d'évaluation d'impact et le problème de l'évaluation d'impact. Des études empiriques aient documenté un impact positif des programmes de microcrédit, les résultats ne sont pas concluants car les études négligent les problèmes économétriques de l'évaluation d'impact, c'est-à-dire le biais de sélection et l'endogénéité. Il est donc nécessaire d'évaluer l'impact du crédit sur la performance des PME mesurée par la croissance des ventes et de l'emploi.

Mots clés : accessibilité, impact, microcrédit, PME, petite et moyenne entreprise, financement

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Abstract:
Small and medium-sized enterprises (SMEs) play a crucial role in economic growth by creating jobs, generating income, and stimulating growth. However, access to finance for SMEs is lower than for large enterprises, which hinders the growth and development of SMEs. The limitations of formal financial institutions in providing credit to low-income groups such as SMEs have given rise to microfinance programs. Thus, access to microcredit remains the major challenge for most SMEs. In this context, this study aims to examine relevant theories and practices regarding credit markets, accessibility and the impact of microcredit. SMEs are limited in accessing formal credit because financial institutions do not extend credit due to information asymmetry, high processing costs, and insufficient collateral value. This paper also reviews impact assessment methodologies and the problem of impact assessment. While empirical studies have documented a positive impact of microcredit programs, the results are inconclusive because the studies neglect the impact of econometric evaluation, i.e. selection bias and endogeneity. It is therefore necessary to evaluate the impact of credit on the performance of SMEs as measured by sales and employment growth.

Keywords: accessibility, impact, microcredit, SME, small and medium enterprise, financing

JEL: G2, O1, L2, O5

Introduction

The contemporary financial landscape presents a nuanced framework in which credit and its accessibility have become pivotal subjects, especially in the context of Small and Medium-sized Enterprises (SMEs). As engines of economic growth, SMEs face unique challenges and opportunities in their financial journeys. Access to credit, and particularly microcredit, plays a significant role in fueling this sector of the economy, shaping not just individual enterprises but also influencing broader economic trends.

Section 1 of this study will provide an in-depth analysis of the relationship between credit and SMEs, laying the groundwork for understanding the myriad factors that influence this complex relationship. It forms the backbone of our exploration into how credit can act as a lever, accelerating or inhibiting the growth of SMEs.

In Section 2, the paper dives into the determinants of access to credit, elucidating the numerous factors that govern this access. This section is subdivided into various critical aspects that include both macro and micro-level considerations. These range from the characteristics of the owner/manager and SMEs, to broader networking considerations, different aspects of microcredit, and even the intricacies of interest rates on microloans. Together, these factors paint a comprehensive picture of the multifaceted elements that contribute to or hinder access to credit.

Further, an exploration of the impact of microcredit takes a central stage in this investigation. Through an examination of previous studies, impact assessment methods, and specific analysis at the business level, Section 2 seeks to unravel the actual effect of microcredit on the dynamics of small and medium-sized business operations. Lastly, the conclusion is presented to summarize the fundings of this paper.

1. Credit and SMEs

According to academics, financial exclusion acts as a "brake" on economic development, as it hinders economic growth and increases poverty and inequality (Beck and Demirgüç-Kunt, 2008). The absence of broad access to financial services implies the existence of tariff and non-tariff barriers to the use of financial services (World Bank, 2008). Figure 1 illustrates access to finance. SMEs can be divided into two categories: users and non-users of financial services. SMEs that use financial services can be guaranteed access to finance. Non-users of financial services, on the other hand, do not have access to finance, because SMEs are faced with a choice: to be voluntarily or involuntarily excluded from financial services.

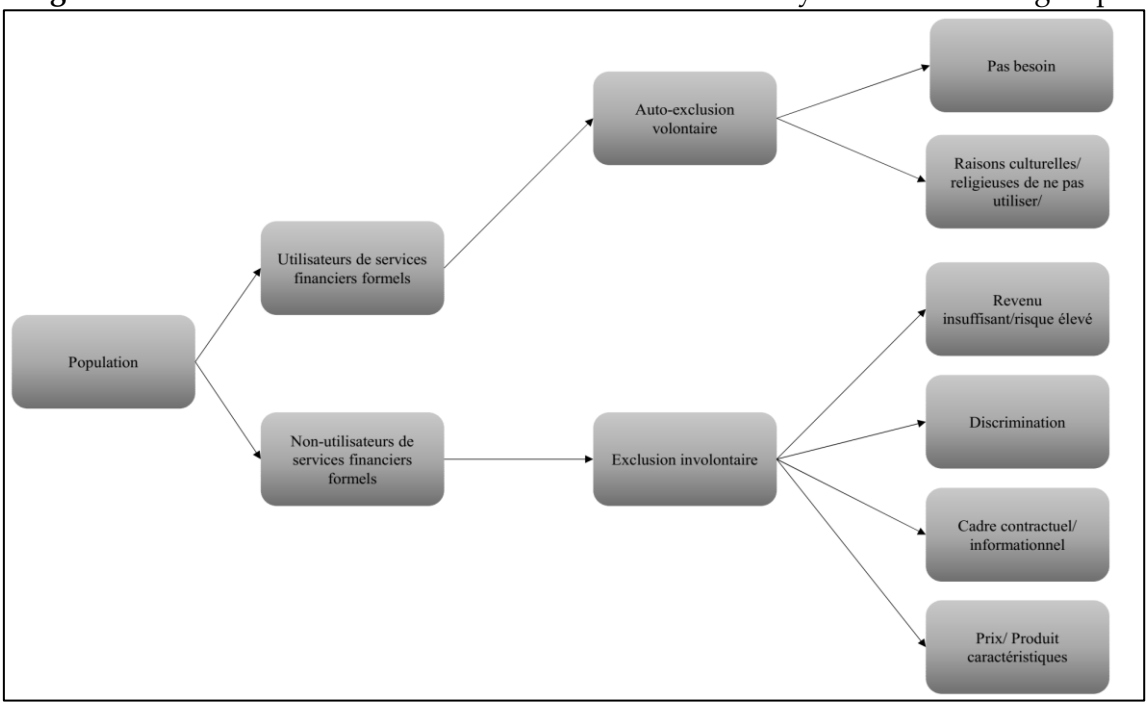
For example, there are those who do not use financial services for cultural or religious reasons or because they do not need finance. As a result, these non-users of financial services have access to finance, but they choose not to use the financial services available.

Involuntarily excluded SMEs, meanwhile, demand financial services but do not have access to them, and comprise several different groups (see Figure 1). Firstly, there is a group of households and businesses that are considered unbanked because they do not have sufficient income, because of cultural or religious beliefs, or because they present a higher lending risk.

Secondly, there could be discrimination against certain population groups on religious, social, or ethnic grounds. For example, Khalid and Abd Wahab (2014) report that the absence of Islamic finance discourages some SMEs from borrowing from conventional banks, as they believe that loans with an interest rate are prohibited by Islamic Sharia.

Thirdly, the contractual and information framework may prevent financial institutions from reaching certain population groups because it is too costly to be commercially viable. For SMEs in sparsely populated areas, physical access to banking services can be very difficult (World Bank, 2008). Finally, the price of financial services may be too high, or the characteristics of the product may be inappropriate for certain population groups.

Figure 1: Distinction between access to finance and its use by individuals and groups



Source: Adapted from World Bank (2008)

Access to credit can be improved by the possession of collateral. In general, financial institutions require collateral when approving credit, yet the poor often have inadequate marketable collateral, such as physical assets, and are therefore often excluded from traditional financial markets.

Credit is considered essential to the growth of any business. At the firm level, credit is needed to finance working capital and fixed capital investment. Unfortunately, it is widely recognised in the literature that SMEs struggle to access finance (Lawless & McCann, 2011). Without credit, SMEs languish and stagnate. Carpenter and Petersen (2002) observed that the growth of over 1,600 SMEs in the US appeared to be limited by a lack of internal equity finance. Companies that do not have access to bank finance increase their vulnerability to external shocks (Atieno, 2009).

Companies with better access to capital are able to exploit more investment opportunities (Beck, Demirgüc-Kunt, & Maksimovic, 2005). In other words, the overall performance of the economy will be improved by better access to capital (World Bank, 2008). The theory of credit markets developed by Stiglitz and Weiss (1981) attempts to explain credit rationing in credit markets. This theory explains why some borrowers can obtain loans on the markets but not others.

Agency problems such as asymmetric information and moral hazard can have an impact on the availability of credit. As explained by Stiglitz and Weiss (1981), market imperfection creates credit rationing and limits access to credit for SMEs. According to Bataa (2008), Chong (2010) and Malhotra et al. (2006), the main reasons why SMEs are generally more credit constrained are as follows:

(i) The transaction cost is relatively high because it is inefficient to process small loans to SMEs. (ii) Difficulty for both financial providers and SMEs to adopt new lending technologies such as: 1) lending based on potential borrowers' ability to pay and less on collateral 2) introducing appropriate decision-making and control tools supported by management information systems and information technology to facilitate loan portfolio management. (iii) Information asymmetries due to the high cost of obtaining information on SMEs and inconsistent financial statements, as well as the lack of market references. (iv) High transaction risk as SMEs are very vulnerable and have volatile turnover. (v) SMEs have weaker business management than established companies. According to Schmidt and Kropp (1987), small firms' access to financial services is known to be one of the constraints limiting the benefits they derive from credit facilities.

However, in most cases, the access problem, especially among financial institutions, is a problem created by the institutions primarily through their lending policies. This takes the form of prescribed minimum loan amounts, complicated loan application procedures and restrictions on credit for specific purposes.

Potential borrowers will not apply for credit if the duration of the credit, the repayment terms, the requirement for security such as collateral and the provision of additional services do not meet their needs and requirements. Therefore, potential borrowers do not apply for credit because they would be denied access even if credit existed.

2. Determinants of access to credit

2.1 Factors affecting access to credit

Akudugu, Egyir and Mensah-Bonsu (2009) describe access to credit as a condition in which an individual has the right, attempts to own and makes the decision to borrow or not. The decision depends on the borrower's economic endowment and opportunities (Messah & Wangai, 2011). Several factors determine credit accessibility.

2.1.1 Characteristics of the owner/manager

According to Hessels and Terjesen (2008), entrepreneurial human capital refers to an entrepreneur's knowledge, experience and skills related to a business activity. Some studies construct human capital theory by examining the owner's background, such as education, age, gender and experience, when assessing creditworthiness (Biggs, Raturi, & Srivastava, 2002).

The literature indicates that the success of small businesses depends on the ability of the owner/manager (Mahmood & Mohd Rosli, 2013) to control the business. Therefore, owner/manager characteristics are key determinants of credit accessibility as they can influence access to credit and affect the performance of SMEs. In addition, understanding owner/manager characteristics can lead to a better understanding of SMEs' financial practices.

Previous research has highlighted age (Ibrahim & Aliero, 2012), gender (Wellalage & Locke, 2017) and marital status (Hoque, Sultana, & Thalil, 2016) as frequently used indicators to understand SMEs' credit accessibility. These indicators have been used to investigate whether a demographic characteristic is associated with credit accessibility and its impact on SME performance.

However, the evidence in the literature shows mixed results. Nofsinger and Wang (2011) investigated the key factors of external finance in 27 countries and concluded that owner/manager experience is helpful in accessing finance from institutional investors. However, Ogubazghi and Muturi (2014) revealed that the education level of the owner/manager does not make much difference in determining SMEs' access to bank loans. Mosley and Hulme (1998) found strong evidence of a positive relationship between access to credit and the income level of the borrower.

The authors indicated that the upper and middle levels of the poor benefit more from income-generating credit initiatives than the poorest. Similarly, Umoh (2006) found that an increase in entrepreneurs' income reduced the likelihood of businesses applying for credit.

2.1.2 Characteristics of SMEs

The literature suggests that, in addition to owner characteristics, firm characteristics can also influence firms' access to credit. Several characteristics of SMEs influence their financial behaviour and access to finance decisions, such as age, size, sector and ownership.

Consequently, SME characteristics are also important factors affecting access to credit. Numerous studies indicate that the age of a business influences its access to credit. Most young and newly-established businesses have great difficulty in obtaining external finance because of information asymmetries.

Osei-Assibey, Bokpin and Twerefou (2012) pointed out that a new microenterprise is considered risk averse because the microenterprise prefers less risky and less costly financing, such as bootstraps. Bootstrap financing is defined as a variety of alternatives that an entrepreneur can take to meet the financial needs of the business without borrowing from financial institutions, such as trade credit and leasing (Van Auken & Neeley, 1996). As the business establishes itself or matures, its ability to seek formal finance increases.

Woldie, Mwita, & Saidimu (2012) studied three different business cycles: 1) Start-up, 2) Two years after start-up, 3) Five years after start-up. The author found that nascent (start-up) businesses were financed by savings (37.1%), family and friends (28.6%), inheritance (20.0%) but only 2% by minimal formal financial sources. The author concluded that very few start-ups have the experience and skills to obtain loans.

Beck and Levine (2004) suggested that small businesses generally turned to informal sources, such as moneylenders or family and friends, or relied on short-term bank loans, to finance a larger proportion of investment.

At the same time, larger companies turned to formal external sources, such as equity and bank finance, to facilitate their investments. According to Beck, Demirgüç-Kunt and Maksimovic (2008), large companies are more likely to have fewer constraints when accessing credit because they have many other sources of finance. However, smaller companies have a higher credit risk which limits their access to bank credit. The study by Beck et al (2008) showed that small businesses rely more on informal and internal financing than on bank financing.

2.1.3 Networking

The relationship between creditors and businesses has become particularly important for access to credit (Harhoff & Körting, 1998). Networking is important for the progress of the business, because the information needed to start up and expand a business is passed on to the entrepreneur mainly through the existing social networks of his partners or friends. The problem of information asymmetry in the creditor/debtor relationship can be reduced by networking (Shane & Cable, 2002).

Where there are no efficient market institutions, networking and relationships can be a substitute and they are also effective ways for firms to access external credit. Moro and Fink (2013) agree that a loan officer's trust in firms can reduce credit barriers and improve credit accessibility. In fact, several authors agree that networks are an effective way for firms to overcome information asymmetry (Dabla-Norris & Era Koeda, 2008).

2.2 Factors affecting access to microcredit

In response to the inability of the formal financial sector to meet the credit needs of poor people and small businesses, such as microenterprises, microcredit was introduced in the late 1970s by Professor Muhammad Yunus to help these people.

Microcredit was designed to help the poor move from financial exclusion to financial inclusion. Because of its potential, such as poverty reduction, microcredit has been recognised as an effective development intervention programme by many countries (Li, Gan, & Hu, 2011).

An increasing number of SMEs worldwide need access to microcredit; however, accessibility remains low, especially in developing countries (Hussain, Millman, & Matlay, 2006).

Table 1 summarises the determinants of access to microcredit. Previous studies have focused on access to microcredit at the household level, but relatively few studies have examined the effect at the enterprise level. The aim of microcredit is to create self-employment for the 'unbankable', i.e. the poor who start their own business.

Table 1: Explanatory variables identified in previous studies affecting access to microcredit[iii]

Author	Explanatory variables used in previous studies affecting access to microcredit																
	Characteristics of the owner (1)							Household characteristics (2)			Company characteristics (3)				Networking (4)		Distance (5)
	A	G	MS	E	FT	EXP	EDU	HS	HI	IE	AB	SB	O	S	LP	BA	D
Umoh (2006)	-	-	-	-	-	-	x	x	x	-	x	x	x	-	-	-	-
Takahashi et al. (2010)	x	x	x	-	-	-	x	x	-	x	-	-	-	-	-	-	-
Li, Gan and Hu (2011a)	x	x	-	-	-	-	-	x	x	-	-	-	-	-	-	-	x
Durojaiye, Yusuf, & Balogun (2014)	x	x	x	-	-	-	x	x	-	-	-	-	-	-	-	-	x
Peprah & Ayayi (2016)	-	-	x	-	-	-	x	x	-	-	x	-	-	x	-	-	x

2.2.1 Access to credit and modelling techniques

Numerous empirical studies attempt to test the explanatory power of access to credit. Many studies have identified problems affecting access to credit for SMEs (Ajagbe, 2012). Ajagbe (2012) assumes that a company has two alternatives: either to take out credit or not to take out credit. These authors used probit analysis to identify the factors that affect a small firm's decision to take credit in Nigeria. In a similar study, Akoten et al. (2006) examined the determinants of access to credit for Kenyan producers from four different types of funding sources (family and friends, rotating savings and credit associations, MFIs and banks). The authors used a multivariate probit approach. Determinants of access to credit include owner/operator characteristics and location dummies. A study by Essien and Arene, (2012) used the logit model to identify the determinants of access to credit for smallholder agricultural enterprises in the Niger Delta. Similarly, Umoh (2006) used the probit model to investigate the relationship between a micro-entrepreneur's access to credit and a vector of household and firm characteristics, including age, education, family size, firm age, firm type and firm size.

2.3 Factors influencing the choice of microcredit provider

The decision to choose between different microcredit providers is influenced by a number of factors such as owner characteristics, loan characteristics, network and distance that influence a borrower's decision to choose between different types of microcredit providers. Recognising the diversity of SMEs' financial needs, microcredit providers have adopted different business models and strategies (Tuyon et al., 2011) to reach SMEs. Therefore, loan characteristics are also involved in determining the choice of microcredit provider available.

[iii] Note: Column 1: age (A), gender (G), marital status (MS), ethnic origin (E), education (EDU), financial training (FT), experience (EXP). Column 2: Household size (HS), Household income (HI), Economic support (IE) Column 3: Age of business (AB), Size of business (SB), Ownership (O), Sector (S) Column 4: Loan provider (LP), Business association (BA) Column 5: Distance (D)

According to SME Corporation Malaysia's 2011 report, as SME businesses grow and mature, they tend to choose credit provided by commercial banks and DFIs because the financial assistance provided by MFIs is limited. For example, the loan amount that can be borrowed from MFIs is relatively small and may no longer meet the needs of the businesses (Hassan, Abdul Rahman, Abu Bakar, Mohd, & Muhammad, 2013).

As SMEs grow and expand, they require large amounts of credit to finance investments and purchase working capital goods (Presbitero & Rabellotti, 2014). In terms of the interaction between microcredit providers and borrowers, potential borrowers who have maintained a long-standing membership with their microcredit provider are more likely to borrow from them.

2.4 Factors affecting the interest rate charged on microloans

Since the introduction of microcredit in the late 1970s, the interest rate applied to microcredit has attracted the attention of policymakers around the world. Microcredit organisations tend to charge the highest interest rates to borrowers. Previous studies have analysed the determinants of interest rates in standard banking literature (Rosenberg, Gaul, Ford, & Tomilova, 2013) but interest rates in microfinance are less studied (Dorfleitner, Leidl, Priberny, & von Mosch, 2013).

Even though the microfinance market is highly competitive, the interest rate charged remains high. The research question is as follows: what factors determine the rate of microcredit loans? To our knowledge, this question has not been studied previously. Like other loans, microcredit must be repaid. For this reason, microcredit providers need to assess the risks of SMEs (Serrano-Cinca, Gutiérrez-Nieto, & Reyes, 2016).

Therefore, this study attempts to improve our understanding of the lending rate charged by microcredit providers. According to Kapkiyai and Kimitei (2015), the interest rate charged depends on the riskiness of the borrower in order to mitigate the adverse selection problem when an option is made between risky and non-risky borrowers. Interest rates could discriminate between male and female borrowers.

2.5 Impact of microcredit

Microcredit programmes have gradually become important elements of strategies to promote SME development (Hulme, 2000). Since the role of microcredit is to provide credit to the poor, improving access to microfinance is an effective way of reaching the poor and improving their lives.

According to Hartarska and Nadolnyak (2008), the presence of microfinance institutions minimises financial constraints and helps small businesses to access credit and thus improve their activities. Several researchers agree that granting small amounts of credit to small businesses could encourage their growth (Khandker, 2005). Banerjeey, Duflo, Glennerster and Kinnan (2009) assert that microfinance programmes have a significant impact on business results, such as profits, sales and the number of people employed by the business.

Similarly, Ngehnevu and Nembo (2010) found that in Cameroon, microfinance programmes make a significant contribution to the performance of businesses that receive financial assistance and social intermediation services. A positive impact is also supported by Durrani, Usman, Malik, & Ahmad (2011) who revealed that access to and effective delivery of microcredit can help the poor to smooth their consumption, cope with risk management, build their assets steadily, establish their businesses, improve their income-earning capacity and improve their quality of life by reducing their poverty.

The authors add that, in terms of businesses, entrepreneurs are able to expand their activities and adopt better technologies, which boosts productivity thanks to microfinance (Islam, 2007).

2.6 Impact assessment methods

Various methods have been developed to overcome the lack of information when gathering information and to minimise bias when assessing impact. Impact assessment methods include sample surveys, rapid assessment of participation, observation of participation, case studies and participatory learning and action (Hulme, 2000).

The strengths and weaknesses of each method have been discussed by Montgomery et al (1996) (see Table 2 for a description of the strengths and weaknesses of each method). Determining the counterfactual is at the heart of the evaluation design.

This can be done using a number of approaches that fall into two broad groups, namely experimental or randomised designs, and quasi-experimental or so-called non-randomised designs (Baker, 2000).

Table 3 presents the methods used to evaluate the impact of programmes. Firstly, the randomised design is supposed to provide an accurate counterfactual and control for self-selection bias, provided that the experiment is properly implemented and individuals are randomly allocated to treatment or control groups (Blundell & Dias, 2000).

Another method for resolving endogeneity is the endogenous switching regression (ESR) model. The ESR model estimates the impact of a binary endogenous treatment variable on a continuous outcome variable. A switching equation sorts individuals into two different states (with an observed regime).

The method uses a two-stage approach to derive consistent starting values. The first step suggested by Maddala (1983, pp 223) consists of estimating the selected equation on the basis of a discrete choice model (Kimhi, 1999). The second step is to estimate the effect coefficient with two regime equations for the observed and unobserved regimes.

Table 2: Common impact assessment methods

Method	Key features	Strength/weakness
Sample survey	Collect quantifiable data using questionnaires. A random sample and a matched control group are used to measure predetermined indicators before and after the intervention.	- Large scale of applicability and representation - Large quantification and standardisation of data - High capacity to isolate and measure the causes of change outside the project - High cost and time scale - High human resource requirements - High capacity to capture the diversity of perceptions and negative impacts
Participation in rapid assessment	A range of tools and techniques originally developed as rapid rural appraisal. It involves the use of focus groups, semi-structured interviews with key informants, case studies, participant observation and secondary sources.	- Weak scale of applicability and representation - Weak quantification and standardisation of data - Weak ability to measure the causes of change in the project - Great ability to grasp qualitative information and causal processes - Need for highly qualified resources
Observing participation	Extended residence in a programme community by field researchers using qualitative techniques and small-scale sample surveys.	- Weak scale of applicability and representativeness - Weak quantification and standardisation of data - High capacity to capture the diversity of perceptions and negative impact - High time scale and medium cost range
Case studies	Detailed studies of a specific unit (group, locality, organisation) involving open questions and the use of the research tool to prepare stories.	- Low scale of applicability and representation, and quantification - Strong ability to capture the diversity of perceptions and negative impact
Participatory learning and action	The preparation by beneficiaries of a programme of timelines, impact diagrams, village and resource maps, well-being and wealth rankings, seasonal diagrams, problem rankings and institutional assessments through facilitator-assisted group processes.	- Low scale of applicability and representation, and of quantification - Low capacity to measure the causes of change in the project - Great ability to grasp the diversity of perceptions and negative impact

Source: Adapted from Hulme (2000) and Montgomery et al. (1996).

Table 3: Summary of methods for assessing the impact of programmes using survey data

Method	Main features	Strengths/weaknesses
Randomised design	Experimental data The impact of the programme can be calculated directly from the control and treatment groups.	- Randomisation can solve the problem of missing data - Randomisation still suffers from attribution problems
Correspondent	Type of non-experimental data The impact of the programme can be recovered from the coefficients in the common support region.	- Various developed matching techniques can be used to obtain the impact coefficient. - Matching requires relatively rich data to construct the common support region.
Instrumental variable	Type of non-experimental data The impact of the programme can be estimated based on a selection of unobserved factors that affect the decision to participate	The instrumental variable can resolve the bias of the participation decision based on unobserved factors due to a non-experimental sampling design.
Difference in-Differences	Non-experimental and panel data The impact of the programme can be calculated from the control and treatment groups, assuming no change over time and no change in the composition of each group.	- The difference-in-difference method can solve the problems associated with selection bias and attribution. - The difference-in-difference method requires two periods of data and is based on two underlying assumptions
Endogenous switching regression[a]	The switching equation sorts individuals into two different states (with an observed regime). It is solved using a two-stage method to derive consistent starting values.	Capable of capturing both direct and indirect effects, but unable to measure the scale of the direct effect.

Source: Adapted from Baker (2000); (a) (Kimhi, 1999)

2.7 Previous studies on impact assessment problems

Different econometric methods have been applied to deal with selection bias in empirical studies. Nguyen (2007) measured the impacts of borrowing activities on borrowers' consumption for the period 1992-1998 in Vietnamese rural households. Various econometric techniques were used in Nguyen's study. First, the author performed a simple ordinary least squares (OLS) regression of household consumption on independent household control variables, such as the age of the head of household, the gender of the head of household, the education level of the head of household, employment, the value of the house and the size of the landholding. The author found that the results could be biased due to the absence of controls for endogenous variables and therefore implemented the propensity score matching method after probit regression.

To deal with sample selection bias in impact evaluation on cross-sectional data, Shahriar (2012) applied a propensity score matching (PSM) technique to measure the impact of microfinance in northern Bangladesh. This technique assumes that the probability of participation in a microfinance programme can be determined by observable characteristics. Two individuals with similar propensity scores, one belonging to the treatment group and the other to the control group, are matched. The difference in the mean score of these matched individuals can be attributed to participation in the programme because the matched individuals have similar characteristics.

2.8 Impact of microcredit at a business level

Microcredit is essential to the growth of SMEs because they need sustained investment in working capital. But with low incomes, accumulating this capital can be difficult. In these circumstances, microcredit can enable SMEs to improve their income and accumulate capital (Atieno, 2001).

This section examines the impact of microcredit at the enterprise level using different techniques. Empirical studies on the impact of microcredit can be classified into two groups: those that have neglected the problem of selection bias and those that have not. Dunn and Arbuckle (2001) used analysis of covariance (ANCOVA) to assess the impact of microcredit-on-microcredit participants in Peru and found that it significantly increases net income, assets and employment of microenterprises. Although the study used panel data to measure impact variables between 1997 and 1999, methodological limitations to deal with possible selection bias may provide unreliable results. Hartarska and Nadolnyak (2008) used the credit constraint approach to study the impact of microfinance on microenterprises' access to credit in Bosnia-Herzegovina. Their results indicate that microfinance can alleviate the financing constraints faced by businesses. The logit model used in the study avoids the methodological challenges typical of impact assessment and thus leads to an underestimation or overestimation of its results.

3. Conclusion

This paper has examined the relevant theories and practices concerning credit markets, accessibility and the impact of microcredit. SMEs are limited in their access to formal credit because financial institutions do not extend credit due to asymmetric information, high processing costs and insufficient collateral of value. Microcredit was therefore introduced to meet the credit needs of poor people and small businesses. It is important to understand the key drivers of access to microcredit among SMEs, as they are major contributors to income and job creation. Previous empirical studies have focused on factors affecting access to microcredit at the household level, but relatively few studies have looked at factors at the enterprise level. Furthermore, to the best of our knowledge, the present study is the first attempt to assess the impact of microcredit on SME performance based on a quasi-experimental study using PSM and DID methods to mitigate selection bias.

This paper also examines impact evaluation methodologies and the problem of impact evaluation, although a few empirical studies have documented a positive impact of microcredit programmes, the results are inconclusive because the studies neglect the econometric problems of impact evaluation, i.e. selection bias and endogeneity. It is therefore necessary to assess the impact of credit on the performance of SMEs as measured by growth in sales and employment.

Conflict of Interest Statement

I certify that I have NO affiliations with or involvement in any organization or entity with any financial interest (such as honoraria; educational grants; participation in speakers' bureaus; membership, employment, consultancies, stock ownership, or other equity interest; and expert testimony or patent-licensing arrangements), or non-financial interest (such as personal or professional relationships, affiliations, knowledge or beliefs) in the subject matter or materials discussed in this manuscript.

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