

# FINANCING MICRO AND SMALL ENTERPRISES: ASSESSING THE IMPACT OF MUDRA LOANS IN AN EMERGING ECONOMY

**Dr. Yogesh Mahajan**  
**Associate Professor**  
Indira School of Business Studies  
Pune, India  
E-mail: yogeshdmahajan@yahoo.co.in

## ABSTRACT

*This paper studies the impact of mudra on small and micro enterprises in terms of income generation, business expansion, standard of living, and employment generation in the process. The research is socio-economic research. The project applied mean difference method for quantitative data analysis and relative importance index method to analyse qualitative data. Paper used Schedule to conduct personal interviews to collect data from 384 respondents using convenience sampling. It was found that to some extent, the schemes have been successful in providing loans to MSME sector. The enterprises are benefitted due to collateral free mudra loan in terms of income generation and business expansion. But there was no significant impact on employment generation and standard of living as proved from the data collected from the respondents due to mudra loan. Also, no significant improvement in human development index was found among the respondents. No significant improvements in quality of food and nutrition were found as informed by the respondents. Financial independence has not been achieved for the women entrepreneurs. Policy implications for government and bank has been discussed at the end of paper. The paper is based on the project funded by Indian Council of Social Science Research, New Delhi. This is a first kind of study conducted to study the impact of mudra loans on small and micro enterprises in India.*

**Keywords:** Impact, Mudra Loan, SME Finance, Income Generation, Business Expansion, Standard of Living, Employment Generation.

**JEL Classification Codes:** M10, E21.

## INTRODUCTION

An economy like India with a population of more than 1.25 billion cannot sustain, if it does not have vibrant small, medium, and micro enterprises (MSMEs) to create jobs for the burgeoning population. According to the World Bank report, growth alone won't be enough for other developing countries to achieve the higher employment rates. More than 1.8 million young people in South Asia are expected to reach their working age every month through 2025. Economic growth creates jobs in the region is good news, said Martin Rama, Chief Economist of the South Asian Region. However, providing the young entrants with opportunities while attracting more women to the labour market will require even more employment for every point

of economic growth, added Rama. Today small, micro and medium scale provide employment to more than 20% of the working population in India (Indian Institute of Banking & Finance, 2013). So, it is necessary that this MSME enterprises are provided with government support in the form of loans, training, exposure, and support in marketing of their products. The pillars of economic development in India are micro, small, and medium-sized enterprises. They make up 45 percent of the country's GDP with more than 30 million SMEs unit units in India. After agriculture, MSME is the second largest sector to generate jobs. MSMEs in India contribute 30.27 to the GDP off the country. Approximately 31% of the total exports and production, while 45% and 34% of the total are provided by MSMEs in India. As per National Sample survey, there are approximately 633.88 lakh in India (Ministry of Micro, 2021). The Government recently took several steps to boost manufacturing in India, 'Make in India' is one such initiative, and is announced for a new industry. The lack of timely and adequate funding is one of the major obstacles to expansion. Today the total funding gap for SMEs is estimated at around 126 billion dollars. The debt gap of this is about 84 billion dollars (Kumari & Trivedi, 2019).

MSMEs face many problems. They are in backward position compared to large corporates (Wasiuzzaman, 2020) in India. The main problems faced by MSMEs are information availability, credit constraints (Sandhu, 2020), policies at the entry level, high costs, infrastructure shortages and barriers to technology. Also, sixty-two percent of the cast, tribal and other backward classes are held in the Scheduled Caste, who have less accesses to loans. It is difficult to get into formal financial services and credit for these low-income groups and the weaker sections. Global governments have credit guarantees in place to alleviate loan constraints on medium and small enterprises. These schemes are aimed at encouraging lenders to lend to small companies. Credit guarantee schemes (Gai et al., 2016) reduce the lender's risk by ensuring that a portion of the loan is reimbursed in case the borrower is defaulting. SMEs can therefore receive credit; they would not otherwise have received.

Government of India introduced collateral free and guaranteed loan scheme Pradhan Mudra Mutra Yojana (PMMY), for the non-corporate, non-farm small/micro enterprises, to provide loans up to Rs 10 Lakh in April 2015. Under PMMY, all banks, i.e., public, private sector, rural banks and micro-finance institutions, state co-operative banks and foreign banks are obliged to lend income to the non-farm sector generating activities below Rs. 10 Lakh. This credit is classified as PMMY's MUDRA credit. In addition to the micro-finance sector in general, the Government has created a new institution for implementing the system called MUDRA (Micro Units Development & Refinance Agency Limited).

It offers refinancing to all small businesses in India. MUDRA is thus refinancing for all the last-mile finance for banking and non-banking companies, which lend to micro/small companies engaged in the production, trade and other services, MUDRA was established with the primary purpose of developing the country's micro-business sector by broadening various supports, such as financial refinancing support and entrepreneurship assistance. The MUDRA loan objective of "Funding the Unfunded" has twin purposes, seeding new entrepreneurs (Doan Winkel et al., 2013) and expanding existing units. Allocation under PMMY has been doubled in Union Budget in 2017-2018 from previous 1.22 Lakh Crore to Rs. 2.44 Lakh Crore from with priorities to Tribals, Dalits, Minorities, Women and Backward class.

### **STATEMENT OF THE PROBLEM AND RELEVANCE**

Small firms play a significant role in contributing to nation-wide gross domestic product (GDP) and in providing jobs to many people in developing countries with a large population (Indian

Institute of Banking & Finance, 2013). The government's objective is to give this sector loans to create jobs in India. The government of India (GOI) has launched a new financial inclusion initiative like Pradhan Mudra Mutra Yojana to finance the unfunded micro-entities segment. India Today, a magazine, submitted a request to the Financial Services Department for an RTI request for aggregate loans used and the aggregate sum paid under the Mudra scheme to date? The RTI also sought to know number of people who had received credits up to Rs 10 lakh and how many had been repaid up to now? On 8 August 2018, the response from RTI disclosed most of the loans, which fell by approximately 93 per cent in the lower category of Rs 50,000. So far about 13.5 crore loans, of which approximately 93 percent (12.1 crore) is 'Shishu,' up to 50,000 rs, have been paid out, replied the RTI . "Such micro loans are only useful for small businesses like single cattle dairy farmers or some 'thela wala' but it will not be sufficient to create substantial employment," Ajit Ranade, an Economist said (India Today, 2018). In addition, more than 1,4 crore loans paid out in the Mudra regime varied from Rs 50,000 to Rs 5 lakh (category Kishore) and more than 19,6 lakh loans were in the size of Rs 5 lakh. The 'sizeable loans' therefore accounted for only 1.45% of the total loans provided under the scheme. The survey, conducted by the (Ministry of Statistics, 2019) showed that the unemployment rate stood at 6.1 percent between July 2017 and June 2018, higher than the previous high point reached in 1972-1973.

In the light of this data, it is necessary to study the degree of impact of mudra loans on small business in India. It is necessary to study how much employment generation has happened due to Mudra Loans. Also, it is necessary to study how Mudra loans had been utilized by entrepreneurs for business expansion and income generation. The study will seek to understand how the loan was utilized, how it had helped the micro enterprises and how much employment was created in the process. The study is conducted in Pune city of Maharashtra state in India. The research is necessary as it affects society in terms of employment generation and standard of living. The research is a socio-economic research.

### **Performance of Mudra Scheme in India-**

The performance of PMMY scheme for the last 5 years is given below.

Table 1. Total Sanctioned Amount from 2015-2020 (All India)

<b>Sr. No</b>	<b>Year</b>	<b>Total Amount Sanctioned (Rs. Crores)</b>
1	2015-16	137449.27
2	2016-17	180528.54
3	2017-18	253677.1
4	2018-19	321000.00
5	2019-20	337000.00

Source: <https://www.mudra.org.in>

Based on the initial survey by the researcher, by meeting various stakeholders like bank managers, mudra loan beneficiaries and review of past literature from journal papers, articles in newspapers, magazines etc., we propose following research questions to be studied in this research project.

### **RESEARCH QUESTIONS TO BE STUDIED**

- Have the Micro enterprises benefitted from the MUDRA loans?
- To what extent, they have been benefitted?
- Measuring the extent of success and founding the gaps?
- What has been the impact in terms of income generation, employment generation, standard of living and business expansion?

### **OBJECTIVES OF THE PAPER**

- To study the benefits derived by micro enterprises from MUDRA loans.
- To study and measure the extent of impact on micro enterprises in terms of employment generation, income generation, business expansion and standard of living.
- To study the gaps in providing Mudra loans to Small and Micro enterprises.

### **REVIEW OF LITERATURE**

Every nation steadfastly tries to support small, medium, and micro enterprises because they provide employment to masses and helps to increase GDP of the country. The role of micro, medium and small enterprises is critical for the economy. Focusing on developing MSMEs, they has the potential to improve economic diversification and create jobs. To boost this segment, the Government has launched several measures including soft loans and extended financial guarantees. The importance of small and micro enterprises has been highlighted by various others. For example, the role of the lending segment in the upliftment of MSMEs in India has been identified by Raj Kumar. The findings showed that the contribution of enterprises (MSMEs), both in their contribution to GDP and in the creation of jobs, was significant in economic development. In the last decade, researchers have analysed the growth of bank loans for the MSME sector. The examination revealed that credits of the Bank for the MSME sector have increased considerably since government implemented priority sector lending standards, but there is still a major gap that must be met in terms of the loan requirements of this sector (Kumar & Biswas, 2016). The support to these enterprises from the government is in various forms. It may be in the form of loans, marketing (Carmona-Lavado et al., 2020) support, technology upgradation, import export support, skilled manpower, strategic support (Gosenpud & Vanevenhoven, 2011) etc. Past research papers have studied this impact and access (Bewaji et al., 2015) of various schemes offered by governments all over the world to MSMEs. Below is a review of such literature to understand the methodology, statistical tools, and actual impact of this schemes on MSMEs in India and around the world.

Holscher and his co-authors studied the effect of loans on the productive efficiency and performance of SMEs from transitional countries. By using propensity score matching, regression and stochastic frontier approach, they showed that loans result in enhanced performance and create statistically significant reduction in inefficiency (Hoelscher et al., 2016). Arraiz studied firm performance when partial credit guarantees are provided to SMEs. They studied the data of firms across ten years. They found that both production and employment in these companies have grown (Arráiz et al., 2014). (Aivazian & Santor, 2008). Kersten et al. (2017) found that few evaluations of SME finance programs were done by experiment methods. It has also found a significant impact of finance on company performance, investment in capital and employment within the supported company, while the summary effect is insignificant on profitability and wages. In short, the degree to which SME funding helps economic development and poverty reduction (Morris et al., 2020) remains unclear (Kersten et al., 2017). Azzim found

that collateral has positive relation with default and guarantees and default were negative related. Secondly, the authors found a negative relationship between collateral and high-credit influences and a good relationship between collateral and low-credit and default influences (Duarte et al., 2018). Raghu Kumari studied the determinants of credit in India for SMEs. Focus group interview were used to determine factors. Age and net worth of owner were 2 impact factors while giving credit to SMEs. Authors suggested that banks should focus on start-ups who have creative ideas and innovative products. Also, SME owners should have clarity of thought and approach, while applying for SME loans (Kumari & Trivedi, 2019). When the loan was granted to SMEs, Harri examined SME productivity. When lending to small and medium-sized enterprises he found productivity increased (Ramcharan, 2017).

In the field of business funding, there is an ongoing issue in which women borrowers have more funding difficulties than men because of gender bias on the loan marketplace (Shoma, 2019). Rahman aimed to analyse the credit constraints of the Visegrad countries experienced by female borrowers. It was observed by authors that both male and female borrowers have similar perceptions of financial problems, while demanding bank loans and have a similar priority. It shows, therefore, that in these countries gender discrimination is not the case (Rahman & Zbrankova, 2019). In Surabaya, Indonesia's 2nd biggest city, Adwin (2015) surveyed more than 100 women entrepreneurs. Applied to evaluate social, financial, and human relationships, the ordered probit technique is applied. This research establishes a positive relationship between social capital and human capital and a negative relationship between financial capital and performance. In terms of non-financial factors, policy makers might consider creating and taking account in the design of credit policies incentives for spousal participation in micro-enterprises run by women. Meetings should be offered to expedite the participation of representatives in business dialogues and the development of social relations. It seems important that group leaders and loan officers can facilitate such discussions (Atmadja et al., 2016). To assess the effects of a micro-credit programme targeted at women, Attanasio et al. (2015) from a randomised field experiment, presented evidence in rural Mongolia. The authors found that an encouraging impact on women's entrepreneurship is found due to access to group loans and the consumption of home food, but not on income or overall hours. A personally liable microcredit programme simultaneously implemented does not have significant impacts on poverty reduction (Attanasio et al., 2015). Some researcher examined the restrictions on access to loan for female SMEs in the municipality of Ghana city. The study showed that weak market demand and unavailability of capital and loan are constrained. In addition, even though there are collateral agreements for small enterprises, the patrilineal legacy system in this area discriminates against women micro-enterprises.

Garcia-Tabuenca and Crespo-Espert (2010) analysed the assignment of guarantees through the Spanish system of guarantee, one of the most traditional support measures for SMEs using a counterfactual approach. Two groups (guarantees, preferential financing, or just preferential funding) of companies forming a treatment group for long-term financial support to companies, as well as other two control groups, were studied. The benefits can be observed mainly in weaker companies that are able to deal with their projects, although their financial costs cannot be reduced until they reach a relatively high level similar to those reached by companies that are not covered by the guaranteed system (Garcia-Tabuenca & Crespo-Espert, 2010). The potential presences of credit restrictions faced by Irish SMEs have been investigated by Gerlach-Kristen et al. (2015), and the effect of those restrictions on jobs and investment by companies are investigated. For companies which are discouraged from applying for credit,

authors found a negative and significant effect on employment by credit constraints of SMEs. Authors also found a negative impact on the likelihood of a SME investment by restrictions. This effect is driven by companies that ration loans when looking for capacity expansion loans (Gerlach-Kristen et al., 2015).

The economic consequences of the SMF credit programme for Canada were reviewed by Chandler (2012). This analysis suggests that programme participation would have increased by 12, 12 and 7 points in salary, employment, and income growth between 2004 and 2006 respectively. Programme also have created around 5,000 jobs, approximately 3.8 percent of the jobs created by companies over the period (Chandler, 2012). The correlation between earnings retention, commercial loans, trade loans, managerial operations, and the performance of SMEs was explored by Khan and Burki (2020). The results confirmed the positive and significant impacts on SME performance of commercial loans, trade credit, and retained earnings. The higher the performance of small enterprises among the firms under study, the greater the amount of trade credit activities (Khan & Burki, 2020). The evaluation of rural household perceptions of their standard of living in the framework of SMEs that they operate was conducted by Straka et al. (2015). The outcomes are based on the authors' survey of rural households in Czech in 2014. The skewed opinion of households on the level of satisfaction and the contribution of SME to positive economic development among households are analysed according to the characteristics of SME, where the home leader works. The article points to the link between the legal form of SMEs and distance from households to the contribution of SMEs to economic development and to the distance between SMEs from home and the satisfaction of the household with living standards (Straka et al., 2015).

Uesugi et al. (2010) examined the efficacy of public credit guarantee programmes in Japan. While authors note that loans are more accessible to programme participants, the increased liquidity only lasted a few years when loan from undercapitalized banks were provided. Moreover, the ex-post performance of the participants of the programme deteriorated in relation to their non-participating partners with the exception of companies with a significant net value. Some researcher studied the efficiency of public credit for the promotion of Brazilian companies. In terms of employment growth, labour productivity and export, the authors focus on the impact of credit lines. Findings reliably demonstrate that entry to public lines of lending has a substantial and significant optimistic effect on employment and export growth, while authors have not seen any significant impact on productivity measurement (DeNegri et al., 2011). Santoso et al. (2020) conducted research in Bantul district, Indonesia, by gathering primary information and a structured questionnaire was administered to rural families. The logistical model was used by the authors to assess the social effects of microcredit debtors. The study found that monthly income, loan, mensural expenditure, credit amounts, interest rates, marital status and education have major effects on the likelihood of increasing the benefit of borrowers following access to micro-credit (Santoso et al., 2020). The evidence and theory have raised concerns, that microcredit is harmful rather than good, especially when offered at high interest rates. The authors use a randomised household survey of qualifying borrowers and their businesses to calculate the impact of Mexico's largest micro lender. Average effects of 18-34 months after expansion on a large number of outcomes indicate no transformational consequences (Angelucci et al., 2014).

Bertrand and Crepon (2014), by studying the country's largest microfinance institution Al Amana, reported the results of a randomised assessment of the microcredit programme launched in Morocco. It showed that microcredit (Mahmood & Matlay, 2014) has a large, although

heterogeneous, impact on the assets and profits made from work, but small, impact on consumption, amongst those who chose to borrow (Crépon et al., 2014). Tinajero evaluated credit programmes using ten-year panel data from 1994 to 2005 panel data for the firms using DID model combined with methods for adjustment of propensity score (PSM). This study found evidence of enhancements in key variables such as gross production, value added, and wages for small and medium-sized enterprise programmes. The study also shows that it may take several years to determine some of the positive impacts. (Lopez-Acevedo & Tinajero, 2010), (Aivazian & Santor, 2008). Ondřej evaluated two EU-funded schemes of credit guarantee from Czech countries. No statistically conclusive findings for most of the outcome variables were obtained two years after the programme. For the programme participants, authors only found positive changes in real fixed assets. The authors cannot, say that the funded companies are better off in the short term compared with those that are not supported (Dvouletý et al., 2019). Blasio analysed the impact on credit access for medium and small enterprises of the Italian scheme Fondo di Garanzia. It also evaluates to what extent the scheme has influenced firm performance in investment and sales. By using techniques of regression discontinuity, the paper shows that there are no impacts for company investments and only a mixed sales impact is detected; guaranteed loans have been used mostly for working capital finance (de Blasio et al., 2018).

The authors have found certain evidence that increasing loans for SMEs contribute to financial stability by reducing non-performing loans and the likelihood of bankruptcy (Morgan & Pontines, 2018). An empirical study was carried out to identify the link between MFI microcredits and the financial performance of SMEs. The results have shown significant links between the amount of micro-loans and the variables dependent on them. In Lebanon, the number of women recipients of credits is low, and services and trade are the main categories of companies in Lebanon, the beneficiaries of which are located mainly in Lebanon, South and the North (Moussa, 2020). The study looks empirically on the effect on poverty reduction and the improvement of the development of human capital in Nigeria in 1999-2008 by the micro-credit provided by microfinance banks. The results show that the intermediation actions of small banks have adverse, negative impacts on the index for poverty and a positive effect on human capital development in Nigeria in this period of study (Onwumere et al., 2012).

Access to financing, especially for service-based industries and new firms without real assets to use as collateral has become increasingly difficult. Between 1990 and early 2011, authors examined credit guarantee schemes (CGs) literature. Authors have largely found descriptive studies of the different conditions and research gaps in guarantee. It appears that the desirability of CGs is assumed while measuring CGs performance results are ambiguous. Authors propose study in fields like risk minimisation factors, impacts of different risk sharing ratios, unintentional CGS impacts, social dimension reporting, default rates in Asia, and security in a knowledge economy (Samujh et al., 2012). Gampala studied credit for supporting and stimulating growth and performance of the MSE sector for micro and small companies in India. The study showed that the loan has an impact on the performance of MSME (Gampala, 2018).

This research explores the impact of state aid on fiscal performance of firms using a sample of private manufacturing medium and small firms (SMEs) in the period 2007-2015 in Vietnam. Unlike many other studies, the research suggests that government support influences the financial performance of companies after control of heterogeneity, dynamic endogeneity, and non-observable issues. The conclusion reinforces the institutional theory perspective. The research also shows that support actions, such as soft loans, tax exemptions, and financial incentives, are vital to Vietnam's private SMEs' development (Nguyen et al., 2018). Ramcharran

study expands the literature on SME performance through empirical observation assessing the effectiveness of credit to India's SME firms through data between 1979 to 2013. The results show that bank credit productivity increases (output elasticity) from 0.76 to 1.23; the labour productivity is negligible but rises from -1.57 to -0.628. Efficiency of the sector improved from -0.89 to 0.607 returns, largely because of increased bank credit productivity (Ramcharran, 2017). The author shows that small enterprises with access to formal funding generate additional jobs than companies without access, with employment in companies with more affordable and bigger loans increasing the quickest. The effects of finance access for production companies are greater than for services and are indicative of sectoral finance targeting as a possible industrialization policy (Brixiová et al., 2020). Cravo analyses and summarises 40 meticulous assessments of small and medium enterprises assistance services and provides proof to inform policy debates on small and medium-sized enterprises and corporate support. Authors show that corporate support measures improve corporate performance and create jobs (Cravo & Piza, 2019).

Ruslan examined the connection between the performance of SMEs and access to microcredit. The article examines how access to microcredits affects employment and sales growth of SMEs by using data from the 2016 survey of owners and management of SMEs in Malaysia. The study showed, using the Propensity Score Matching (PSM) approach, that microcredit sales of SMEs were 25.6 to 25.7 percent higher than those of non-microcredit lenders. But the impact of microcredit access on SME growth was not disclosed by the PSM and the DID analyses. These results were confirmed by the Endogenous Switching Regression (ESR) method (Ruslan et al., 2020). Anke offers a significant outline of the recent research situation and emphasises current study gaps. An alternative approach to research is derived from these lacunae. Since further research is required to give a clear statement on the impact of the scheme on SMEs' loans, implementing this method may aid bridge the existing research gap (Valentin & Wolf, 2013). The efficiency of micro-business credit on increasing business income and innovation is also being reviewed. It is found that FIs provide careful screening and monitoring of micro-enterprise loans linked to appropriate business talents, knowledge, and tools to ensure the efficient utilisation of lending capital.

Zecchini and Ventura (2009) provides a thorough evaluation of the impact of government loan guarantee on SMEs, without jeopardising their sustainability in finance, in terms of increasing credit availability and cutting borrowing costs. Evaluating the results of the medium and small enterprises that benefitted from the guarantees in Italy with a sample of similar companies have carried out extensive econometric tests. The results confirm that guarantee and the greater level of loan leverage of guaranteed companies are related to a causal relationship, as is their lower debt cost. In this respect the guaranteed instrument of Italy has proven to be an effective instrument. From the above review, the ability of companies with access to guaranteed loans to grow in output and jobs and to increase their income each day can be summarised. Some papers indicate that it is still questionable whether collateral free loans play their part in accelerating poverty reduction, since many poor households are unable to access the programme. Also, Small-scale industries and start-ups perform a key role in increasing the living standards of our population especially in India. There is mixed view in literature regarding impact of loans on business expansion, employment, income generation and standard of living.

### **RESEARCH GAP**

Review of literature provides mix results in terms of impact of loans on income, employment, and business expansion. There is hardly any comprehensive investigation in case of mudra loans

in India. There is a significant research gap in case of study of impact and gap analysis of Mudra loans in India. It is necessary to study the impact of this loans on income, employment generation and business expansion. There is also a need to study the problems faced by small scale industries in availing mudra loans and gaps in providing mudra loans to small scale industries. With the help of a comprehensive and theoretically grounded investigation proposed here, this research intend to bridge an existing gap in literature empirically.

### **HYPOTHESIS OF THE PROJECT**

Due to mix reviews in literature and pilot study, project proposed following null hypothesis,

*Hypothesis 1: There are no significant changes in business expansion for small/micro enterprises due to mudra loans in Pune city area.*

*Hypothesis 2: There are no significant changes in income generation for small/micro enterprises due to mudra loans in Pune city area*

*Hypothesis 3: There are no significant changes in employment generation of entrepreneurs for small/micro enterprises due to mudra loans in Pune city area*

### **RESEARCH METHODOLOGY**

The review of literature found use of different methodologies to study the impact of loans on SMEs. For example, the available approaches to public intervention evaluation are discussed in (Khandker et al., 2010). The simplest approach is to have an experiment as described in his most recent article in full randomisation as (Bruhn & McKenzie, 2009). The methods used most frequently are the RDD approach (de Blasio et al., 2018) and the PSM approach (Arráiz et al., 2014), DID approach (Lopez-Acevedo & Tinajero, 2010), counterfactual method (Garcia-Tabuenca & Crespo-Espert, 2010), focus groups (Kumari & Trivedi, 2019) and mean difference method. Menon used descriptive design with regression analysis to study the impact of credit guarantee on SME's in Italy (Alessio D'Ignazio & Menon, 2012). Aivazian and his co-author used accelerator model for the same purpose (Aivazian & Santor, 2008).

Our study uses both qualitative and quantitative factors to study the impact of mudra loan on micro and small enterprises in India. We adopt a mean difference method to analyse quantitative data collected from the respondents (Kothari & Garg, 2019), which considers changes in results before and after the intervention, based on real time data collected directly from the respondents through interview method. We have used relative importance index method to analyse qualitative data collected from the respondents and Cronbach Alpha to test reliability of the scale. Because the beneficiaries are the right source for assessing the impact of mudra loan. The present study is descriptive in nature (Kothari & Garg, 2019). Schedules were prepared and canvassed for the collection of data (Blumberg et al., 2011). The data needed for the study was collected from the respondents by personal interviews method using pre-tested schedule prepared for the purpose. A pilot study of 20 respondents was done to further develop the Schedule by the researcher. The final schedule was then prepared. The field investigator collected data from 400 respondents from Pune city area in a span of 7 months, out of which 384 were considered for analysis. Some of the respondents did not keep records of the costs and revenues for the company they took up. The collected data of some respondents were therefore based on the respondents' memory. During the interview, the personal bias of the sample was

minimised by persuading them that the data was collected for research purpose only. Data on the socio-economic status of the sample were collected from the beneficiaries. Sample distribution was also gathered, like caste, age, education, and family size. Similarly, the data on sales, profit and employment generated through their enterprise before and after mudra loan was collected in the study area. 400 interviews were conducted as per statistical formula, out of which 384 were considered for analysis. Each interview was for a period of 20-30 minutes. The data of beneficiaries was obtained from public sector banks such as Bank of Maharashtra and Bank of Baroda. The field investigator appointed for the study used to take appointment one day before the interview and conduct interview at the time given by the respondent. The data collection took place within a span of seven months from August 2020 to February 2021.

Secondary data was collected through reference books, newspapers, websites, discussions with bank officials etc. Both qualitative and quantitative data was collected from the respondents. The loans in the all the three categories were considered for this study. Only micro and micro enterprises as per new classification of industries were taken for the study. Also, enterprises receiving loans in 2016-17 and 2017-18 were only considered, as they can only have meaningful impact on employment generation, standard of living and business expansion. As the micro and small enterprises is well dispersed in Pune city, convenience sampling (Probability Sampling) was used to collect data from the respondents (Blumberg et al., 2011). Cooper, Pamela, Schindler, 2018).

### **DATA ANALYSIS AND INTERPRETATION**

Statistical Packages for Social Sciences (SPSS) Version 25 and MS Excel was used for data analysis. Data was collected by the field investigator through a schedule from 384 respondents. The data was then converted into a soft copy in MS Excel sheet. The data was then cleaned for missing fields and then coded to be used on SPSS software by the Research Assistant of the project. The final analysis was done using SPSS software.

Maximum respondents (40.6%) were in the age group of 36-45, followed by 37% in the age group of 46-55. Remaining respondents were in the age group of 26-35 and 55-67. The average age of respondents was 43 years. The educational qualification profile is as follows. Maximum respondents (30.7%) were graduates followed by 10<sup>th</sup> (32.6%) and 12<sup>th</sup> (25.8%). 74 % (285) of the respondents were male and 25.8% (99) respondents were females. The social classification based on caste is as follows. 35.7% belong to open category, followed by 27.6% from SC category and 23.6% from OBC category. This classification also shows that approximately 65% of backward class has been benefitted under mudra loan scheme. 97.66 % of the respondents were married as can be seen from the table. 69% of the respondents have 2 children, followed by 16.7% of the respondents, who had 3 children. Only 10.7% respondents have 1 child. 49.7% respondents said that their spouse does housework. 27.6% respondents said that their spouse is in the same business. 15.4% of the respondents said that their spouse is employed in another firm.

Maximum 34.6% respondents are in the business from the last 6-10 years, followed by 21.4% and 20.4% in the bracket of 11-15 years and 1-5 years. Also 15.6% respondents are in the business from 15-20 years. 65.1% of the respondents has start-up capital which was below 1 Lakh rupees. 31.3% of the respondents has start-up capital of 1-5 Lakh rupees. Maximum 59.6% of the respondents were service provider, followed by 29.7% of the respondents who were in trading business. 8.3% of the respondents were having food stall. Service providers include rickshaw drivers, cab drivers, fabrication, salon, beauty parlour, garage, paper agency, tailor,

mess etc. Maximum respondents (63.8%) have taken loan in 2017, followed by 31.51% in 2016. Maximum respondents (56%) have taken loan in the bracket of 3-5 Lakhs Rupees. 29.7% of the respondents have taken loan below 3 Lakhs Rupees. Maximum 57.29% of the respondents have taken loan for a period of 3 years, followed by 17.45 % respondents, who have taken loan for 2 years. 16.67% of the respondents have taken loan for a period of 5 years.

Table 2. Purpose for availing loan

<b>What is the purpose of taking loan?</b>				
Purpose of loan	Frequency	Percent	Valid Percent	Cumulative Percent
Working Capital	155	40.4	40.4	40.4
New Equipment/ Machinery Purchase	179	46.6	46.6	87
Business Expansion	50	13	13	100
Total	384	100	100	

Maximum respondents (46.6%) have taken loan to buy new equipment's/machinery for their business, followed by 40.4% respondents, who said they took mudra loan for working capital requirement. Remaining respondents have taken loan for business expansion.

Table 3. Products bought after income generation due to mudra loan

<b>Have you bought some Product after this income generation due to mudra loan</b>				
Product	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	18	4.7	4.7	4.7
Not Taken	366	95.3	95.3	100
Total	384	100	100	

95.3% of the respondents have said that they have not bought any new household product in the after-income generation from mudra loan. This shows that though there has increase in income of micro enterprises, it has not converted in raising standard of living. This may be due to repayment of loan instalment, fear of corona pandemic etc., as informed by the respondents, Maximum respondents (48.44%) said that they have received loan in less than 15 days, followed by 46.09% in 15-30 days. 64.06% of the respondents said that it is easy to obtain mudra loan, while approximately 30% said that it was difficult to get mudra loan from banks. Maximum respondents (99.48%) said they have used mudra loan for the purpose, it has been taken.

Table 4. Payment of loan instalment

<b>Do you Pay loan instalment regularly?</b>				
Yes/No	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	216	56.3	56.3	56.3
No	168	43.7	43.8	100
Total	384	100	100	

56.25% of the respondents said that they pay mudra loan instalments on time. But 43.75% of the respondents said that they were not able to pay loan instalments on time due to corona, loss in business.

### Hypothesis Testing

Hypothesis testing was carried out to using paired sample T-test as the data was collected from the respondents before and after the mudra loan was taken.

*Hypothesis 1: There are no significant changes in business expansion due to mudra loans in Pune city area.*

Table 5. Hypothesis 1 Paired t-test

Particular	Paired Differences			t	df	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error Mean			
Sales (After Loan) – Sales (Before Loan)	27328.13	57579.07	2938.32	9.301	383	<b>0</b>

As  $p < 0.05$ , hence it can be said that there is significant impact of Mudra loans on business expansion in Pune City area, Null Hypothesis 1 rejected. The SME's were able to take advantage of collateral free loan for business expansion as sales of all this firms have significantly increases as per t-test.

*Hypothesis 2: There are no significant changes in income generation of entrepreneurs due to mudra loans in Pune city area*

Table 6. Hypothesis 2 Paired t-test

Particular	Paired Differences			t	df	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error Mean			
Profit (After Loan) – Profit (Before Loan)	6962.24	28732.87	1466.27	4.748	383	0

As  $p < 0.05$ , hence it can be said that there is significant impact of Mudra loans on income generation in Pune City area, Null Hypothesis 2 rejected. The SMEs were able to take advantage of collateral free loan for income generation as profit of all this firms have significantly increased as per t-test.

*Hypothesis 3: There are no significant changes in employment generation due to mudra loans in Pune city area.*

Table 7. Hypothesis 3 Paired t-test

Particular	Paired Differences			t	df	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error Mean			
No. of Employee (After Loan) – No. of Employee (Before Loan)	0.02083	0.40825	0.02083	1	383	0.318

As  $p > 0.05$ , hence it can be said that there is no significant impact of Mudra loans on employment generation in Pune City area, Null Hypothesis cannot be rejected. The employment opportunities have not significantly increased due to mudra loans.

### QUALITATIVE DATA ANALYSIS

Qualitative assessment of the respondents was carried out using Likert scale to assess the impact of Mudra loan on SME's. Cronbach's alpha test was used to assess the reliability, or internal consistency, of a set of scale or test items.

#### Cronbach's Alpha Test

Table 8. Cronbach's Alpha Test

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	No. of Items
0.759	0.751	12

As Cronbach's Alpha  $> 0.7$ , hence the questionnaire is consistent and valid for qualitative analysis.

#### Relative Importance Analysis

Table 9. Relative Importance (RI) Analysis table

Qualitative Assessment of Mudra Loan and its Impact	RI Value	RI Index	Importance
I think mudra loan has been beneficial to me.	1562	0.813542	1
My social status has improved due to increase in income due to mudra loan.	1383	0.720313	3.5
My food and nutrition inputs for family have improved after this loan.	1244	0.647917	7
My family is happier due to income generation due to mudra loan	1313	0.683854	6
My confidence has increased for future self-actualization	1447	0.753646	2
Financial independence has been achieved for women	330	0.171875	12

This mudra loan helped me to send my kids to better school compared to previous school	1098	0.571875	10
I can afford doctor and medical expenses after getting mudra loan	1126	0.586458	9
My self-esteem has increased due to this loan	1383	0.720313	3.5
I now frequently go to religious / social function / temples etc. after my Income generation due to this mudra loan	1063	0.553646	11
Time Pressure due to loan and repayment of loan has increased on me	1334	0.694792	5
Family relations has affected due to not able to give time to family	1179	0.614063	8

Relative Importance Index method was used to analyse the qualitative data collected from the respondents. The relative importance values and index were calculated for each factor as represented in Table 9. The ranks based on the RI index were calculated. Table 9 shows the 5 most important factors which displays the impact of mudra loan on SMEs. It can be seen that Mudra loan has been beneficial to the beneficiaries to some extent. Also, the confidence has increased for future expansion and growth of business. Social status and self-esteem of the respondents have also increased due to Mudra loan. But pressure has increased due to commitment to pay back the loan and more time is devoted to the business. Also, it is found that financial independence has not been achieved for the women, due to mudra loans in India. As per relative importance index, financial independence is ranked the last number (12), which shows that financial independence is not achieved due to mudra loans.

## RESULTS AND DISCUSSION

The project studied the impact of mudra loans on micro and small enterprises in Pune city area of Maharashtra state in India. The project studied the impact of mudra loans on micro and small enterprises in terms of income generation, business expansion, employment generation and standard of living. Both qualitative and quantitative data was collected from the 384 respondents with the help of Schedule prepared for this study by the field investigator appointed for the same. The data was then analysed using SPSS and MS Excel. The analysis found that mudra loan has been beneficial to the SMEs in Pune city area to some extent. The SMEs were benefitted due to collateral free mudra loan in terms of income generation and business expansion. But there was no significant impact on employment generation and standard of living as proved from the data collected from the respondents due to mudra loan. As no new household product was bought by the respondents, no changes in food and nutrition habits, shows that there is no significant improvement in standard of living. Mudra's objective is to encourage businessmen and small business units to expand their skills and operations, reduce over-debt and create a formal loan system (finance). The objective of mudra loan scheme has been achieved as majority of the respondents said that they have taken mudra loan for business expansion, new equipment/machinery purchase and income generation. This is in line with research literature. Only 56% of the respondents said that they pay mudra loan regularly. Remaining respondents said that they were not paying the loan regularly. This is a cause of concern for banks as it will increase NPA of the banks. This may be due to current pandemic situation, which resulted in loss of business, due to lockdown. Almost all respondents received mudra loan within one month of application to the bank. It shows that banks have implemented the scheme in an efficient

manner. Qualitative data showed that mudra loan has been beneficial to the SMEs. But no significant improvement in human development index was found among the respondents. No significant improvements in quality of food and nutrition were found as informed by the respondents. Also, this mudra loan has not helped respondents to send children to better school compared to previous school. It can be said from the qualitative data collected that; no significant financial independence was achieved through mudra scheme for women. Though the mudra loans were taken on the name of women, the firm was operated by the male member of the family. In case of loans given to females, the application is processed by male family member. Females are not aware of the mudra loan scheme. They are also not aware that mudra loan is taken in their name.

The documentation is also less while applying for the loan. Bank staff is also cooperative. The loan amount received is less than loan applied for. The loan amount should be increased. The disbursement is also quick and fast. Social status and self-esteem of the respondents have increased due to benefits from the mudra loan. Also, confidence to expand and grow the business has also increased due to mudra loans.

Time pressure has increased because of mudra loan as they must devote more time to business so that they can repay the loan on time. Approximately 65% of respondents were from backward class who have been benefitted under mudra loan scheme. The mudra loan was taken by majority of respondents for working capital, business expansion and new equipment/ machinery purchase. Only 5% of the respondents said that they have bought any new household equipment after deriving the benefits of the mudra loan. Almost all respondents received mudra loan within one month of application to the bank. 65% of the respondents said that it is easy to avail mudra loan from banks and 30% of the respondents said that it is difficult to avail mudra loan from banks. Only 56.3% of the respondents said that they pay the loan instalments regularly. 43.7% of the respondents said that they do not pay mudra loan instalments regularly. This is due to corona pandemic impact for the last one year. Most of the mudra loans were given to people who were in contact with the respective banks. Most of the respondents were not aware of exact rate of interest on mudra loan. No significant improvements in quality of food and nutrition were found as informed by the respondents. One extra instalment is charged for servicing of loan in each year.

### **IMPLICATIONS OF THE PROJECT**

The project proposes following recommendations to the government, banks, and SMEs.

- Most of the loans were given by banks to achieve the targets by the government to the banks at the end of financial year. This dilutes the objectives of such a scheme launched by the government. Proper procedure should be followed by banks to provide mudra loans, keeping in view the objectives of the mudra loan scheme.
- Mudra loans should not be given by the banks based on relation, information about applicant, political interference etc. People, who are genuine, are overlooked in such situations.
- Proper counselling and detailing of the mudra loan like interest rate, period of loan repayment, etc. should be provided to the applicant. Most of the applicants are not aware of these particulars.
- Proposals submitted for mudra loan are not of good quality. So, banks should undertake training sessions for developing good business proposal for loan.

- More awareness about the scheme should be done by the bank through marketing and publicity. Banks should properly display banners in the bank premises, showing the procedure and eligibility criteria for mudra loan scheme.
- As recovery rate is low, bank managers should connect with beneficiaries to understand their problems and support them in their time of crisis.
- SMEs should prepare proper business proposal before applying for mudra loan.
- Beneficiaries are facing loan repayment problem due to corona pandemic. Banks should provide support by either waiving off interest rate for some period or extending time of repayment of loan.
- Such study should be conducted by banks, to assess the impact of such loans on enterprises.
- In case of loans given to females, the application should be done by the female only.
- Female entrepreneurs should be promoted by giving special interest rate on mudra loan.
- Female entrepreneurs should be given separate training for business proposal development.
- Loan amount should be increased considering the rate of inflation in the present scenario.
- Separate staff should be provided for mudra loans process in the bank, as implementation of mudra loan scheme increases additional burden on the existing bank employees, which affects the quality of their work.

### **CONCLUSION**

The project studied the impact of mudra loans on SMEs in Pune city area of Maharashtra state. The project studied the impact of mudra loans on SMEs in terms of income generation, business expansion, employment generation and standard of living. Both qualitative and quantitative data was collected from the 384 respondents with the help of Schedule prepared for this study by the field investigator appointed for the same. The research found that the mudra loan scheme has been beneficial to the small and micro enterprises in Pune city area. It has resulted in increase in income generation and business expansion for the beneficiaries. But there has been no significant improvement in employment generation and standard of living of the beneficiaries due to mudra loan. The research also found that no financial independence has been achieved for women due to mudra loan.

### **LIMITATIONS AND FUTURE SCOPE FOR RESEARCH**

Every effort has been made to develop the research project. However, there are some limitations of the project, which are mentioned here. The project uses Mean Difference method and Relative Importance method to analyse quantitative and qualitative data respectively collected from the respondents. Other methods are also available to analyse this data as per literature review. Schedule was used to collect data from the respondents. Other methods are also available for the same as per literature review. The data collected and its analysis is solely dependent on the responses giving by the respondents to the interviewer. The data was collected in corona pandemic period, the effect of which cannot be ruled out on the project. Time was also a major constraint as the project got delayed due to corona pandemic. Future research can be carried out in different states of India for more generalisations of the results. Also, comparative studies with different countries can be undertaken with India (Imarhiagbe et al., 2021). Cross sectional studies can be carried out to understand the impact of mudra loans over a period for different

stakeholders. Studies with the help of panel data can be carried out in future to provide more validity to the results of this project.

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### REFERENCES

- Aivazian, V. A., & Santor, E. (2008). Financial constraints and investment: Assessing the impact of a World Bank credit program on small and medium enterprises in Sri Lanka. *Canadian Journal of Economics*, 41(2), 475–500. <https://doi.org/10.1111/j.1540-5982.2008.00471.x>
- Alessio D'Ignazio, & Menon, C. (2012). *The Causal Effect of Credit Guarantees for SMEs: Evidence from Italy*. <https://doi.org/https://doi.org/10.1111/sjoe.12332>
- Angelucci, M., Karlan, D., & Zinman, J. (2014). Microcredit impacts: evidence from a randomized microcredit program placement experiment by compartamos banco. *National bureau of economic research*. <http://www.nber.org/papers/w19827>
- Arráiz, I., Meléndez, M., & Stucchi, R. (2014). Partial credit guarantees and firm performance: evidence from Colombia. *Small Business Economics*, 43(3), 711–724. <https://doi.org/10.1007/s11187-014-9558-4>
- Atmadja, A. S., Su, J. J., & Sharma, P. (2016). Examining the impact of microfinance on microenterprise performance (implications for women-owned microenterprises in Indonesia). *International Journal of Social Economics*, 43(10), 962–981. <https://doi.org/10.1108/IJSE-08-2014-0158>
- Attanasio, O., Augsburg, B., De Haas, R., Fitzsimons, E., & Harmgart, H. (2015). The impacts of microfinance: Evidence from joint-liability lending in Mongolia. *American Economic Journal: Applied Economics*, 7(1), 90–122. <https://doi.org/10.1257/app.20130489>
- Bewaji, T., Yang, Q., & Han, Y. (2015). Funding accessibility for minority entrepreneurs: An empirical analysis. *Journal of Small Business and Enterprise Development*. <https://doi.org/10.1108/JSBED-08-2012-0099>
- Brixiová, Z., Kangoye, T., & Yogo, T. U. (2020). Access to finance among small and medium-sized enterprises and job creation in Africa. *Structural Change and Economic Dynamics*, 55, 177–189. <https://doi.org/10.1016/j.strueco.2020.08.008>
- Bruhn, M., & McKenzie, D. (2009). In pursuit of balance: Randomization in practice in development field experiments. *American economic journal: applied economics*, 1(4), 200–232. <https://doi.org/10.1257/app.1.4.200>

- Blumberg, B., Cooper, D., & Schindler, P. (2011). *Business Research Methods*. McGraw-Hill Education.
- Bertrand, M., & Crépon, B. (2014). Microeconomic perspectives. In *Youth and Employment in Sub-Saharan Africa* (pp. 125-188). Routledge.
- Carmona-Lavado, A., Gopalakrishnan, S., & Zhang, H. (2020). Product radicalness and firm performance in B2B marketing: A moderated mediation model. *Industrial Marketing Management*, 85, 58-68.
- Chandler, V. (2012). The economic impact of the Canada small business financing program. *Small Business Economics*, 39(1), 253–264. <https://doi.org/10.1007/s11187-010-9302-7>
- Cravo, T. A., & Piza, C. (2019). The impact of business-support services on firm performance: a meta-analysis. *Small Business Economics*, 53(3), 753–770. <https://doi.org/10.1007/s11187-018-0065-x>
- Crépon, B., Devoto, F., Duflo, E., & Pariente, W. (2014). Estimating the impact of microcredit on those who take it up: evidence from a randomized experiment in morocco. In *nber working paper series*. <http://www.nber.org/papers/w20144>
- de Blasio, G., De Mitri, S., D’Ignazio, A., Finaldi Russo, P., & Stoppani, L. (2018). Public guarantees to SME borrowing. A RDD evaluation. *Journal of Banking and Finance*, 96, 73–86. <https://doi.org/10.1016/j.jbankfin.2018.08.003>
- DeNegri, J., Maffioli, A., Rodriguez, C., & Vázquez, G. (2011). The Impact of Public Credit Programs on Brazilian Firms. *Inter-American Development Bank (IDB) - Working Paper Series*, 293, 1–48. <http://ideas.repec.org/p/idb/spdwps/1103.html>
- Duarte, F. D., Gama, A. P. M., & Gulamhussen, M. A. (2018). Defaults in bank loans to SMEs during the financial crisis. *Small Business Economics*, 51(3), 591–608. <https://doi.org/10.1007/s11187-017-9944-9>
- Dvouletý, O., Čadil, J., & Mirošník, K. (2019). Do Firms Supported by Credit Guarantee Schemes Report Better Financial Results 2 Years After the End of Intervention? *B.E. Journal of Economic Analysis and Policy*, 19(1), 1–20. <https://doi.org/10.1515/bejeap-2018-0057>
- Gampala, P. (2018). Credit impact on performance of micro and small enterprises in Telangana. *Academy of Entrepreneurship Journal*, 24(2), 30.
- Garcia-Tabuenca, A., & Crespo-Espert, J. L. (2010). Credit guarantees and SME efficiency. *Small Business Economics*, 35(1), 113–128. <https://doi.org/10.1007/s11187-008-9148-4>
- Gerlach-Kristen, P., O’Connell, B., & O’Toole, C. (2015). Do credit constraints affect SME investment and employment? *Economic and Social Review*, 46(1), 51–86.

- Gosenpud, J., & Vanevenhoven, J. (2011). Using tools from strategic management to help micro-entrepreneurs in developing countries adapt to a dynamic and changing business environment. *Journal of Applied Business Research (JABR)*, 27(5), 1-14.
- Gai, L., Ielasi, F., & Rossolini, M. (2016). SMEs, public credit guarantees and mutual guarantee institutions. *Journal of Small Business and Enterprise Development*, 23(4), 1208–1228.
- Hoelscher, J., Howard-Jones, P., & Webster, A. (2016). *The impact of loan financing on SMEs from transitional countries* (No. BAFES01). Department of Accounting, Finance & Economic, Bournemouth University.
- Imarhiagbe, B. O., Smallbone, D., Saridakis, G., Blackburn, R., & Mohammed, A. (2021). *Access to finance for SMEs in post-socialist countries : the Baltic States and the South Caucasus compared*. <https://doi.org/10.1108/JSBED-01-2021-0036>
- India Today. (2018). *Fact Check: Are MUDRA loans really generating jobs?* India Today. Retrieved from <https://www.indiatoday.in/fact-check/story/fact-check-are-mudra-loans-really-generating-jobs-1313563-2018-08-13>
- Indian Institute of Banking & Finance. (2013). *Small and Medium Enterprises in India*. Taxmann Publications Private Limited.
- Kothari, C. R., & Garg, G. (2019). *Research methodology: Methods and techniques* (Fourth multicolor edition). *New Age International (P) Limited, Publishers*.
- Kersten, R., Harms, J., Liket, K., & Maas, K. (2017). Small Firms, large Impact? A systematic review of the SME Finance Literature. *World Development*, 97(2016), 330–348. <https://doi.org/10.1016/j.worlddev.2017.04.012>
- Khan, M. A., & Burki, M. (2020). Determinants of small and medium enterprises with the interaction effect of managerial activities. *International Journal of Research in Business and Social Science (2147- 4478)*, 9(4), 153–160. <https://doi.org/10.20525/ijrbs.v9i4.750>
- Kumari, R., & Trivedi, P. (2019). Determinants of SME Credit in Mumbai-Empirical Analysis On Factors. *The Journal of Developing Areas*, 53(2), 193–203. <https://doi.org/10.1353/jda.2019.0030>
- Kumar, R., & Biswas, A. (2016). Innovative Financing and its Implications on MSME Sector in India. In *Handbook of Research on Promotional Strategies and Consumer Influence in the Service Sector* (pp. 421-433). IGI Global. <https://doi.org/10.4018/978-1-5225-0143-5.ch025>
- Khandker, S. R., Koolwal, G. B., & Samad, H. A. (2010). *Handbook on impact evaluation: quantitative methods and practices*. World Bank Publications.
- Lopez-Acevedo, G., & Tinajero, M. (2010). Mexico impact evaluation of SME programs using

- panel firm data. *World Bank Policy Research Working Paper Series, January*, 1–45.
- Mahmood, S., & Matlay, H. Z. (2014). *Optimal microfinance loan size and poverty reduction amongst female entrepreneurs in Pakistan*. 21(2), 231–249. <https://doi.org/10.1108/JSBED-03-2014-0043>
- Morris, M. H., Santos, S. C., & Neumeyer, X. (2020). Entrepreneurship as a solution to poverty in developed economies. *Business Horizons*, 63(3), 377-390.
- Ministry of Micro. (2021). *Annual Report 2020-21*.
- Morgan, P. J., & Pontines, V. (2018). Financial Stability and Financial Inclusion: the Case of Sme Lending. *Singapore Economic Review*, 63(1), 111–124. <https://doi.org/10.1142/S0217590818410035>
- Moussa, F. (2020). Impact of microfinance loans on the performance of smes: The case of Lebanon. *Business: Theory and Practice*, 21(2), 769–779. <https://doi.org/10.3846/btp.2020.11110>
- Nguyen, H. T. T., Van, H. V., Bartolacci, F., & Tran, T. Q. (2018). The impact of government support on firm performance in Vietnam: New evidence from a dynamic approach. *Asian Academy of Management Journal*, 23(2), 101–123. <https://doi.org/10.21315/aamj2018.23.2.5>
- Onwumere, J. U. J., Ibe, I. G., Ugbam, O. C. (2012). The impact of micro-credit on poverty alleviation and human capital development: Evidence from Nigeria. *European Journal of Social Sciences*, 28(3), 416–423.
- Rahman, A., & Zbrankova, H. (2019). Female borrowers and credit constraints in sme loan market: An analyses from the visegrad countries. *Polish Journal of Management Studies*, 20(2), 426–440. <https://doi.org/10.17512/pjms.2019.20.2.36>
- Ramcharran, H. (2017). Bank lending to small business in India: Analyzing productivity and efficiency. *Quarterly Review of Economics and Finance*, 65, 16–24. <https://doi.org/10.1016/j.qref.2016.06.003>
- Ruslan, R. A. H. M., Gan, C., Hu, B., & Quang, N. T. T. (2020). Impact of Microcredit on SMEs Performance in Malaysia. *International Journal of Business and Economics*, 19(1), 109-130.
- Samujh, R. H., Twiname, L., Reutemann, J. (2012). Credit guarantee schemes supporting small enterprise development: A review. *Asian Journal of Business and Accounting*, 5(5), 21–40.
- Sandhu, N. (2020). *Dynamics of banks ' lending practices to farmers in India*. <https://doi.org/10.1108/JSBED-05-2019-0161>

- Santoso, D. B., Gan, C., Revindo, M. D., & Massie, N. W. G. (2020). The impact of microfinance on Indonesian rural households' welfare. *Agricultural Finance Review*, 80(4), 491–506. <https://doi.org/10.1108/AFR-11-2018-0098>
- Shoma, C. D. (2019). Financing female entrepreneurs in cottage, micro, small, and medium enterprises: Evidence from the financial sector in Bangladesh 2010–2018. *Asia and the Pacific Policy Studies*, 6(3), 397–416. <https://doi.org/10.1002/app5.286>
- Straka, J., Birčiaková, N., & Stávková, J. (2015). Impact of SMEs on standards of living of Czech rural households. *Economics and Sociology*, 8(4), 51–64. <https://doi.org/10.14254/2071-789X.2015/8-4/4>
- Uesugi, I., Sakai, K., & Yamashiro, G. M. (2010). The effectiveness of public credit guarantees in the Japanese loan market. *Journal of the Japanese and International Economies*, 24(4), 457-480. <https://doi.org/10.1016/j.jjie.2010.08.001>
- Valentin, A., & Wolf, B. (2013). Credit guarantee schemes and their impact on SME lending: existing literature and research gaps. *International Journal of Entrepreneurial Venturing*, 5(4), 391-405.
- Winkel, D., Vanevenhoven, J., Yu, A., & Bronson, J. (2013). The invisible hand in entrepreneurial process: bricolage in emerging economies. *International Journal of Entrepreneurship and Innovation Management*, 17(4-6), 214-223.
- Wasiuzzaman, S. (2020). *Creditworthiness and access to finance of SMEs in Malaysia : do linkages with large firms matter ?* 27(2), 197–217. <https://doi.org/10.1108/JSBED-03-2019-0075>
- Zecchini, S., & Ventura, M. (2009). The impact of public guarantees on credit to SMEs. *Small Business Economics*, 32(2), 191-206.

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