

SCOPING REPORT: RESEARCH ON SME DEVELOPMENT IN LEAST DEVELOPED COUNTRIES

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Research for Innovation and Equity

Scoping Report:
Research on SME Development
in Least Developed Countries

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Chapter 1 Introduction

1.1 Background

All over the world, small and medium-sized enterprises (SMEs) have, in recent decades, become the backbone of countries' economies. They represent 90% of firms globally, and have been estimated to contribute up to 60% of employment¹. Both formal and informal SMEs contribute massively to GDP and economic growth. With the growing role of SMEs, research on these enterprises and on entrepreneurship development has been expanding in high-income countries. Mapping this expansion and examining its impacts has become a regular endeavour.²

The least developed countries (LDCs) have large SME sectors, and promoting SME development has become the cornerstone of their economic policies. These countries have followed a variety of approaches to promote SME development. Some have opted to have SME policies. Afghanistan, Bangladesh, Cambodia, Laos and Rwanda have, for example released such policies. Other countries have promoted SME development as a part of their larger entrepreneurship strategies. Gambia, Ethiopia and Tanzania are examples of countries that have launched national entrepreneurship strategies that include an SME focus. The countries also differ in terms of their policy emphasis on technological development. Senegal, Bangladesh and Ethiopia have, for instance, all developed digitalization strategies, which include an emphasis on strengthening their SME sector with digital development. Senegal also recently developed a start-up act, which supports new, typically technology-based, SME development. It became the second country in the world to do so, following the lead of Tunisia.

There is also a difference among countries in the extent to which they promote women entrepreneurs. In many LDCs, women have been active entrepreneurs in their informal sectors. Promoting gender equality and empowering women is a part of the United Nations Sustainable Development Goals. One approach to this goal is to strengthen entrepreneurship by women, and tackle the multiple barriers to growth that often exist for women in this sector. In Bangladesh, there is a specific

¹ WPG(2020). Small and Medium Enterprise Finance. The World Bank Group, Policy Brief. <https://www.worldbank.org/en/topic/smefinance>, OECD (2019). OECD SME and Entrepreneurship Outlook 2019. OECD Publishing, Paris.

² Meyer et al (2012). Origin and emergence of entrepreneurship as a research field. *Scientometrics*, 98 (1), 1-13; Ferreira et al (2015). Thirty ears of entrepreneurship research published in top journals. *Journal of Global Entrepreneurship Research* 5:17.

strategy goal to: "Extend programs for women entrepreneurship development and provide specialized services" in its most recent SME strategy, released in 2019. Promoting women entrepreneurs in technology fields is also increasingly on the agenda of LDCs. A potential approach to encourage women entrepreneurs is to support them in establishing technology-based SMEs.

With extensive efforts in promoting SME development, there is a demand for research to inform evidence-based policies and programs. It could be useful for LDCs to have access to the massive literature on SME development in high-income countries. However, SME and entrepreneurship development are highly context-dependent. The culture of entrepreneurship differs widely among countries, and the institutional structure and the wider environment for business development is diverse across nations. Research on SME development in these countries needs to cast a clear light on the specific challenges they face, and examine approaches to address them that are adjusted to the local conditions.

There is a body of literature on SME and entrepreneurship development in developing countries, including the LDCs. There is, however, a lack of studies that analyse and map the research efforts on SME development in these countries. As discussed above such mapping is regularly done in high-income countries, to get an overview of the status and impact of the research. Considering the importance of the SME sector for LDCs, there is a need to know more about the features of the existing research. This project addressed this gap in the literature, and includes a bibliometric analysis of existing research on SME and entrepreneurship development in the LDCs. It is combined with case studies exploring the need for further research on these topics in four LDCs in Africa and Asia. The aim of the project is not only to investigate the research on SME/entrepreneurship development in the LDCs or a scholarly purpose. In addition, the aim is to explore whether this research has created a stock of knowledge on entrepreneurship and SMEs, and identify gaps and some salient characteristics of this research that can guide the development of policies and programs.

The main objective, then, of this project is to examine the state of research on SME and entrepreneurship development in the LDCs. The specific research questions are:

- What is the volume of research papers on SME and entrepreneurship development in the LDCs and is it changing over time?
- Which countries are most focused on in this research?

- What emphasis is placed on research examining women entrepreneurs and women-led SMEs?
- What emphasis is placed on research examining technology development and technology-based SMEs?
- Where are the main gaps in research on entrepreneurship/SME development that need to be bridged?
- What are some of the important design elements of research programs that support research on entrepreneurship/SME development in the LDCs?

1.2 Methodology

To address these questions we used a mixed methods approach, combining bibliometric analysis of publications on entrepreneurship/SME development in the LDCs with qualitative case studies to further explore research needs in four select LDCs.

Bibliometric analysis

To attain the widest possible coverage, we used both the Scopus database and the EBSCO database platform to retrieve publications on entrepreneurship and SME development. Scopus is a multidisciplinary database with over 75 million records. Apart from journal articles and conference papers, Scopus includes books and book chapters. EBSCO is a database platform that connects to a number of different databases, including JSTOR, ERIC, SciELO, World Bank eLibrary, African Journals Online and Google Scholar. Its coverage is wider than typical research databases, and it also includes academic dissertations, reports and working papers that are not typically peer-reviewed.

We searched the databases using the key words 'SME,' 'Small and medium firms,' 'Small and medium enterprises' and 'entrepreneur', which includes also entrepreneurial and entrepreneurship. We paired these keywords with 'least developed countries' or 'LDCs' and the names of the 47 countries listed as LDCs by the United Nations Office of the High Representative for Least Developed Countries, Landlocked Countries and Small Island Developing States. Before selecting a publication for our dataset, we read each paper's abstract to evaluate whether the paper was focused on promoting entrepreneurship or SME development. If the paper was, for instance, primarily on promoting energy

development, or agriculture by involving a SME, we rejected the paper as an entry in our dataset.

We then cleaned the dataset and ensured that it did not include the same publication multiple times. Afterwards we examined the volume, the changes over time and the focal country/countries of the papers. We then conducted a theme analysis of each paper. We read the abstracts again and identified and coded the main two themes each paper addressed. We also specifically examined, and recoded, whether the paper had a gender focus, a micro credit focus or a technology focus.

At the end we carried out an analysis of the authors' affiliations to examine who is conducting this research. We build a dataset of authors' affiliations for all the SME papers involving a technology focus. We looked at whether the author(s) were affiliated with a local institution in the focal country of the paper. If they were not locally affiliated, we classified whether they were from a high-income country or another low-middle income country low-and-middle income. We then examined if the paper included authors with an affiliation with both a low-and-middle income country and a high-income country (therefore involving a North-South collaboration) or if they had affiliations in two or more low-and-middle income countries (therefore involving a South-South collaboration).

Case study research

To examine the main gaps in research on entrepreneurship/SME development and solicit suggestions for research agendas supporting these issues in LDCs, we interviewed experts in four select LDCs. We chose two countries in Asia, Bangladesh and Cambodia; and two countries in Africa, Ethiopia and Senegal. For each case study, we reviewed background documents relevant to entrepreneurship, supporting technology-based firms, and female entrepreneurs. We then conducted online interviews with experts directly involved in promoting entrepreneurship and SME development in the LDCs. We chose experts with diverse roles in their entrepreneurial ecosystems. We also interviewed six experts who had experience in promoting development in the LDCs but were based centrally with multilateral organisations. In total we interviewed 67 experts as a part of these case studies (Table 1.1).

We coded each interviewees' answers to questions on research gaps and suggestions for the structure and designs of research according to themes. We

then clustered related themes together when analysing the data. We compared the answers from the different case studies to explore which themes were more specific to each country and which ones were more widely shared. By interviewing experts who have experience working in LDCs in Africa and Asia, and who have played diverse roles in their innovation ecosystems, we had the opportunity to collect diverse views on research agendas and the design of research programs that complement our bibliometric analysis.

Table 1.1 Interviewees interviewed for the case studies

	Bangladesh	Cambodia	Ethiopia	Senegal	Other informants	Total
Government	2	3	4	3		12
Industry/ incubators	2	4	3	3		12
Financial institutions/ investors	4	1	2	2		9
Multilaterals/ Donors/ Embassies	4	3	5	6	6	24
Academic/ Research Organisations/ Think Tanks	3	3	1	2		9
Associations		1				1
Total	15	15	15	16	6	67

Chapter 2. Main Findings of Analysis of Research Publications

2.1 Publications on entrepreneurship and SME development in general

When we searched for publications on the terms 'entrepreneurship' and 'SME' development focused on the LDCs, we identified a total of 1257 papers published from 2010 to 2019 on these topics (Table 2.1). Most of the documents, or over 65%, were articles. With Scopus having enhanced its coverage in recent years to include book chapters and books in its database, and with the EBSCO platform including a wider range of publications such as theses and reports, the types of articles were quite varied, as can be seen in Table 2.1. Still, the dataset includes relatively few publication types other than articles. Considering that it covers the last ten years, this would seem to be an underestimate of other publication types. For instance, several multilaterals and national governments have been actively producing reports on entrepreneurship issues in developing countries and the LDCs, but only 28 reports were generated in the search results for the period studied.

The dataset is, therefore, likely an underrepresentation of reports on entrepreneurship and SME development in the LDCs. The same observation applies to working papers. The dataset includes a number of working papers, mostly from multilateral organizations and organisations in high-income countries, but seems to underreport working papers produced by institutions in LDCs. As a result, this analysis cannot claim to include all publications on entrepreneurship/SME development in the LDCs, but it does cover internationally available documents well on these topics. The high proportion of articles in journals reflects a relatively heavy involvement of quality control processes. In general, both local and international journals involve peer review processes that vet the publications and ensure they are of high enough quality to be published.

Considering that there are 47 LDCs in the world, the total number of publications for all the LDCs is low (1257 papers) and implies that efforts to research entrepreneurship and SME development in LDCs are generally rather limited. To explore whether there have been any changes in the emphasis on research on entrepreneurship/SME development over the time period we studied, we looked at the number of documents published per year. In general, there is a clear increase over this time period in the number of publications on entrepreneurship/SME development in the LDCs (Figure 2.1). The increase from

the beginning of the period until the end is almost three-fold. However, it is uneven, and some of the years experienced stagnation or a slight drop in publications. Overall, though, the data suggest that research on entrepreneurship in general is increasing in the LDCs, and the stock of knowledge on entrepreneurship/SME development is expanding.

Table 2.1 Publications on entrepreneurship in the LDCs according to types of publications

Types of publications	Number	Percentage
Articles	821	65.3%
Books	41	3.3%
Book chapters	48	3.8%
Conference papers	90	7.1%
Reports	28	2.2%
Review articles	11	0.9%
Theses	178	14.2%
Working papers	40	3.2%
Total	1257	100%

By looking at publications per year it becomes even clearer how few publications focus on entrepreneurship and SME development issues in LDCs in general. If the publications were evenly distributed among the LDCs, which they are not, the increase in documents over the period would be from 1.25 publications per country, per year at the beginning of the time period, to 3.66 publications per country per year at the end of the period studied.

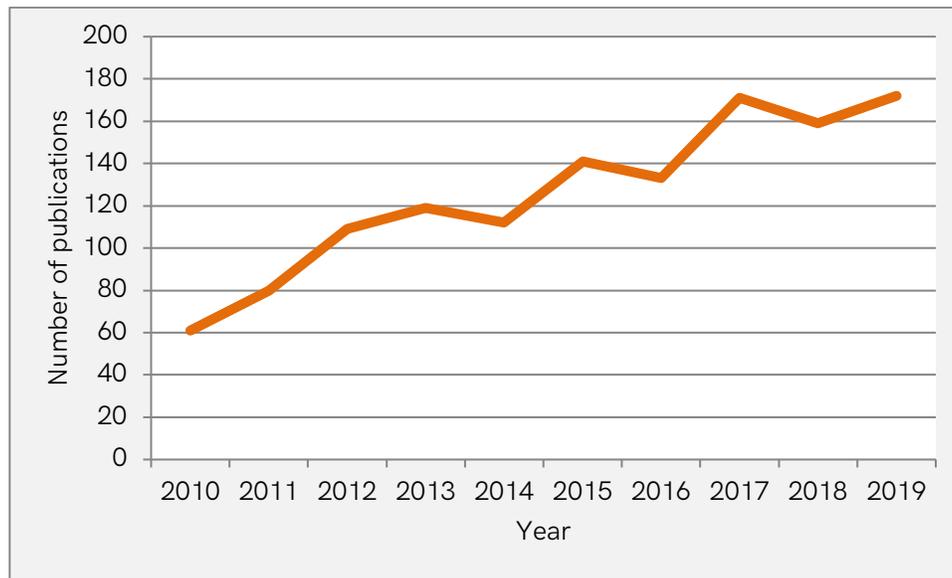


Figure 2.1 Publications on entrepreneurship/SME development in the LDCs per year

To get a better view of entrepreneurship/SME development in the LDCs, we analysed our dataset at the country level. When we look at the focal countries for the publications in our dataset, it is clear that research on entrepreneurship/SME development focuses only very few LDCs (Figure 2.2). By far the majority of documents concern entrepreneurship issues in Bangladesh, or around 22% of the papers. Entrepreneurship/SME development in Tanzania, Uganda and Ethiopia are also relatively frequently researched. Over 60% of the papers on entrepreneurship/SME development are focused on these top four countries. A total of four countries (Central African Republic, Comoros, Kiribati and Tuvalu) have no publications in these databases on entrepreneurship/SME development from 2010 to 2019. Over half of the LDCs have almost no research on entrepreneurship, with zero to ten publications over a ten year period.

We also present the population sizes for each country (Figure 2.2). It shows that the top four countries in terms of number of publications have also relatively large populations. Many of the countries with very few papers have relatively small populations. War torn countries such as the Democratic Republic of Congo, Afghanistan, Sudan and Myanmar are not focal countries for papers on entrepreneurship/SME development on par with their population sizes. A few countries, in addition to the top four countries seem to have a relatively high

number of papers on entrepreneurship/SME development compared to their population sizes. They are Rwanda, Laos, Zambia, Senegal and Cambodia.

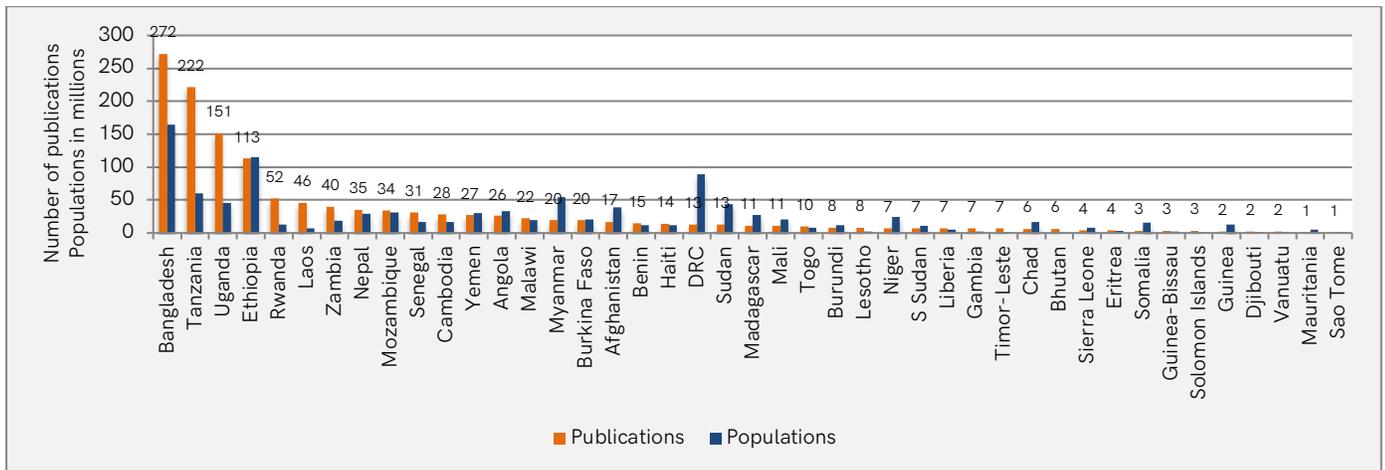


Figure 2.2 Publications on entrepreneurship/SME development in the LDCs and population size by country (2010-2019)³

Even though the databases did identify SME/entrepreneurship papers in various languages, it is quite possible that they have a bias for English-language coverage, and thus underestimate papers focused on French-speaking countries such as Senegal and Mali, and Portuguese-speaking countries such as Angola and Mozambique. In general, there are substantial gaps in entrepreneurship research, which can lead to challenges in developing evidence-based policies and programs to foster entrepreneurship in most of the LDCs. Considering that promoting SMEs is a common pillar of economic and industry policies, these gaps are likely detrimental to the countries' overall growth, and diminish their ability to promote sustainable development.

When we look at the top four focal countries for entrepreneurship/SME development research, we see that the number of publications in all of them has increased over the last decade (Figure 2.3). The increases in Bangladesh and Uganda appear to be slightly steeper in the most recent years compared to increases in the other two countries. For Uganda, it appears that the research on these topics plateaued from 2012 to 2017, but has increased since then.

³ The value numbers above each column refer to number of Publications on entrepreneurship/SME development in the countries.

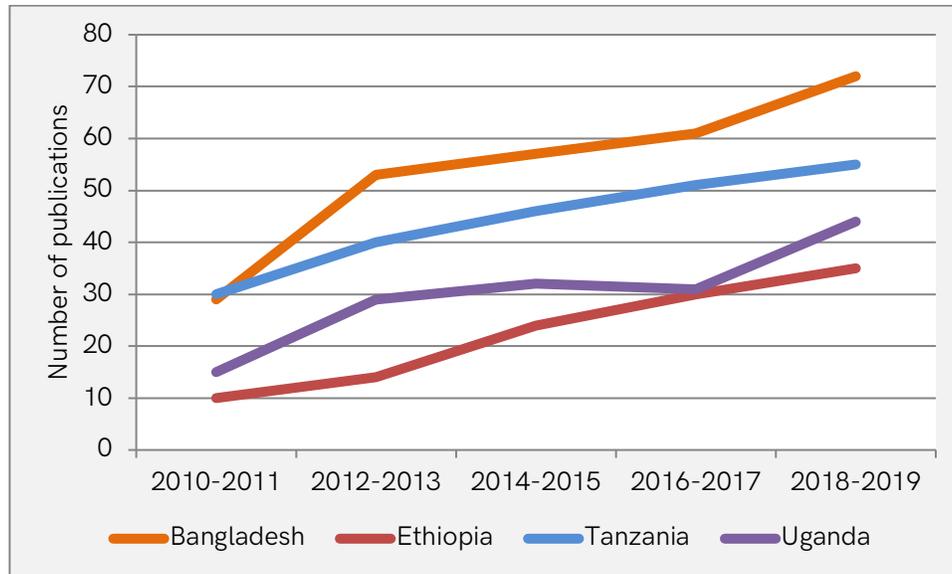


Figure 2.3 Focal countries of publications on entrepreneurship and SME development (2010-2019)

We decided to examine our entire dataset more deeply, and explore some of the themes of the publications on entrepreneurship/SME development. As discussed above, we classified each paper and examined if they researched issues around women and entrepreneurship/SME development. There was a substantial emphasis on examining gender issues around these topics, with close to 20% of the documents involving a focus on women. The number of papers on gender issues seem also to be steadily increasing over the years. We see a similar distribution of the papers across countries as for the total entrepreneurship/SME development papers, with Bangladesh having most publications by far (Figure 2.4).

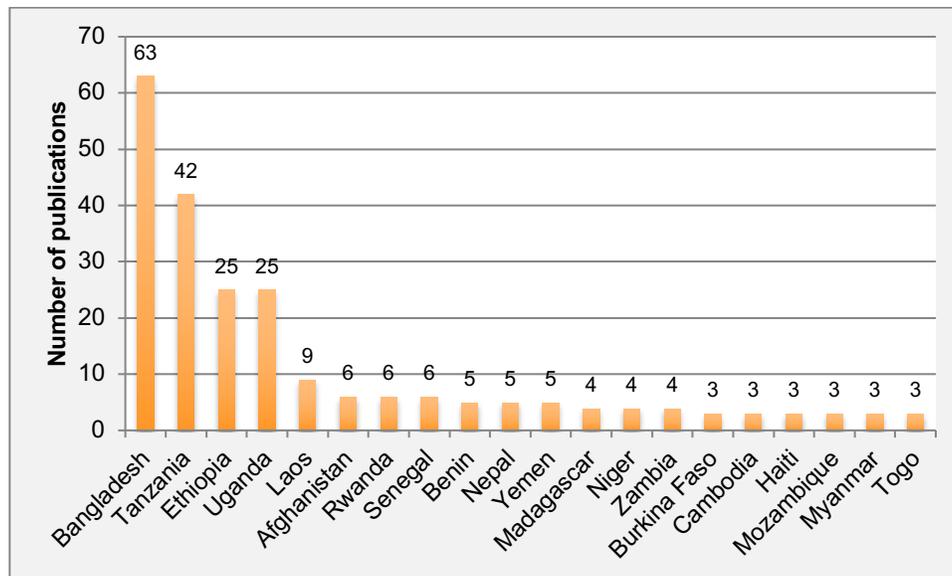


Figure 2.4 Number of entrepreneurship/SME development publications on gender issues per country (2010-2019)

We also observed a substantial emphasis on microcredit and microfinancing with around 8% of the papers focusing on these issues. Other common research themes are access to financing, challenges for SMEs/entrepreneurship development, social enterprises, internationalization of firms, youth entrepreneurship, and characteristics and motivations of entrepreneurs. This is a diverse spread of topics that reflects the complexity of promoting SME and entrepreneurship development.

2.2 Focus on SME development

To zero in on SME development, we analysed specifically publications that involved SMEs. Countries define SMEs differently, but typically they are defined according to how many employees firms have, or how much income they make. According to the United Nations Industrial Development Organisation (UNIDO), developing economies typically define SMEs as employing between 10 and 49 employees, whereas micro enterprises employ less than ten employees.⁴ We decided to follow the terminology that the authors of the documents use themselves when they refer to the development of a small or medium-sized firm. When they referred to a paper researching SMEs we classified the paper to be

⁴ UNIDO (2005). Private Sector Development: The Support Programmes of the Small and Medium Enterprises Branch. Working Paper Number 15. The United Nations Industrial Development Programme.

focused on SMEs, but when they referred to micro firms we classified the paper to be focused on micro enterprises. In many cases the authors referred to micro, small and medium-sized firms, or MSMEs, or other variations of this term. In these cases, we classified the papers as involving both micro firms and SMEs. It is quite possible that some authors refer to firms that have fewer than 10 employees as SMEs, and the numbers of SME papers may, therefore, be somewhat inflated in our dataset.

Around half the publications in our data focus specifically on SMEs, or a total of 611 papers. Not surprisingly there is a much larger emphasis in our data on research on SMEs rather than on micro enterprises (Figure 2.4). We did not search papers using the term 'micro enterprises,' and it is likely that the term 'SME' is more frequently used in general. By looking at publications per year, we observed a clear increase in the research on SMEs over the period studied. The research on micro enterprises has, however, stayed more or less the same.

To further analyse the documents on SME development, we identified the focal country of each document. There are some differences between the focal countries on SME development (Figure 2.5) compared to the focal countries of our whole dataset (Figure 2.2). When we look only at papers on SME development, Bangladesh does not have as large a lead in terms of the number of documents on SME development as in our whole dataset. Its publication level on SME development is on par with Tanzania's. In our whole dataset, close to 22% of the papers focused on Bangladesh, and close to 18% on Tanzania, but around 21% of the SME papers focused on Bangladesh and around 20% on Tanzania. Proportionally, there are slightly fewer papers focused on Uganda and Ethiopia in the SME dataset compared to our whole dataset, and slightly more papers focused on Rwanda and Laos.

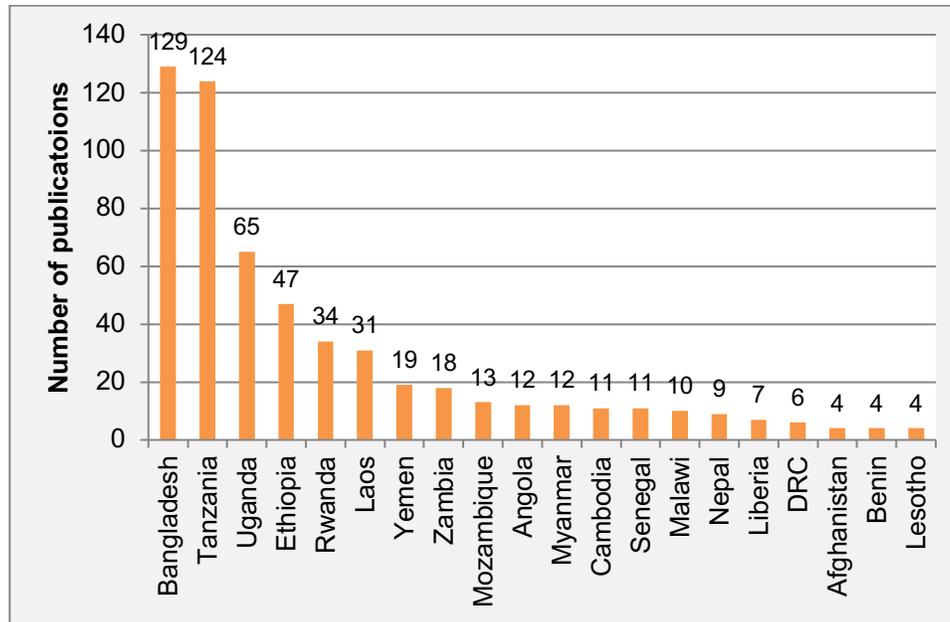


Figure 2.5 Publications on SME development in the top 20 LDCs by countries (2010-2019)

Looking at the themes of the SME papers there is a reduced emphasis on gender issues in these papers, compared to what we see in the whole dataset. Whereas close to 20% of the documents in the whole dataset included a focus on gender issues, just over 7% of the SME papers did do so. There was a slightly lower emphasis of the SME papers on microcredit issues than in the whole dataset. A total of 8% of the whole dataset focused on microcredit/micro financing, but close to 6% of the SME papers did so. Microcredit seems to continue to be a topic of importance for SMEs. The most common themes of the SME papers were issues around financing of firms and financing systems, reflecting the challenge for SMEs to gain access to funds. Close to 20% of the SME papers discussed a wide range of different types of financing issues.

The SME papers also frequently discussed the performance of the firms, and issues around the wider business environment that shapes their performance. This included, for example, how tax systems and legal environments influence the SMEs, and how the ecosystems operated and influenced firms' performances. Issues on the internationalization of the firms and challenges thereof were also a common theme. Incubators, business services and start-ups were further frequently mentioned themes of the SME publications.

In general, only a handful of papers examined how specific policies, programs or other initiatives influenced the development of SMEs. In Table 2.2 we can see that such papers focused on initiatives in diverse countries, not just the most heavily-researched countries in this field. We can also see that the initiatives they describe are not only promoted by national organisations, but also multilaterals and the wider donor community.

Again we see a wide range of themes being researched for SME development, which reflects the wider factors and conditions that shape their operations.

Table 2.2 Examples of papers researching specific initiatives to promote SME development⁵

Focal Country	Name of paper
Bangladesh	<ul style="list-style-type: none"> Adoption of Cloud Computing in the SMEs : an exploration of the issues and challenges for adoption of Cloud Computing by SMEs in Bangladesh in the context of 'Digital Bangladesh' Gender equality results case study-Bangladesh: Small and medium sized enterprise development- Asian Development Bank
Cambodia	<ul style="list-style-type: none"> Moderating effect of government policy on entrepreneurship and growth performance of small-medium enterprises in Cambodia
Democratic Republic of Congo	<ul style="list-style-type: none"> The promotion of CSR in SMEs by support organization. A case study in the Democratic Republic of the Congo - CADICEC
Ethiopia	<ul style="list-style-type: none"> Korea's Cooperation Schemes to Development of SMEs in Ethiopia The role of subsidy on the growth of SMEs: Particular focus on accelerating the industrial transformation process of Ethiopia - Government SME/industrialisation policies Unlocking productive entrepreneurship in Ethiopia: Which incentives matter?
Gambia	<ul style="list-style-type: none"> The relationships between government support programs and performance of SMEs in Gambia
Mauritania	<ul style="list-style-type: none"> Policy options to enhance private sector development - The Second Poverty Reduction Strategy Paper (GRSP-II)

⁵ This list provides examples of SME papers researching specific initiatives and is not intended to be exhaustive.

Rwanda	<ul style="list-style-type: none"> • Entrepreneurship and SME sector development in post-genocide Rwanda: a search for the 'missing middle'
Senegal	<ul style="list-style-type: none"> • La problématique du financement des petites et moyennes entreprises au Sénégal
Tanzania	<ul style="list-style-type: none"> • Investigation of the Influence of Government Policies on Entrepreneurship Performance in Tanzania: A Case of Kinondoni Municipal • Interrogating the effect of environmental factors on e-commerce institutionalization in Tanzania: a test and validation of small and medium enterprise claims -ICT & SME policies
Uganda	<ul style="list-style-type: none"> • Research on the state of business incubation systems in different countries : lessons for Uganda • Stimulating Industrial Development in Uganda Through Open Innovation Incubators
Comparisons between countries	<ul style="list-style-type: none"> • SME development policies of Tanzania and Rwanda: comparability of policy presentation on focus, significance, challenges and participation • Issues in SACCOS Development in Kenya and Tanzania: The Historical and Development Perspectives

2.3 Focus on Technology

As discussed above, one of the objectives of this research is to examine the extent that research on SMEs/entrepreneurship focuses on technology-based firms. We decided to cast a wide net and look at any mentions of technology or technology development in the abstracts of the papers. In general, there was not a strong focus on technology in the papers we identified. When we looked at the whole dataset, more papers examined the use of technology, rather than the development of technology-based firms. Around 10% of the papers we examined (or 121 papers) involved some discussion of the use of technology. Typically, these papers discussed the use of e-commerce, internet-based or mobile banking, or use of information and communication technologies in marketing efforts. They, for instance, examined how information and communication technologies can change how women run their businesses, or looked at the impact of digital literacy to encourage entrepreneurship. Judging from the literature, widespread adoption of technology appears to be challenging for many entrepreneurs and SMEs in LDCs, particularly in rural areas.

When looking at the entire database, around 3% of the documents (or 37 papers) discussed technology more generally for entrepreneurship/SME development (as distinct from a focus on technology use). They, for example, looked at the role of technology infrastructure, such as education and outreach space for digital literacy, or telecentres, in developing entrepreneurship.

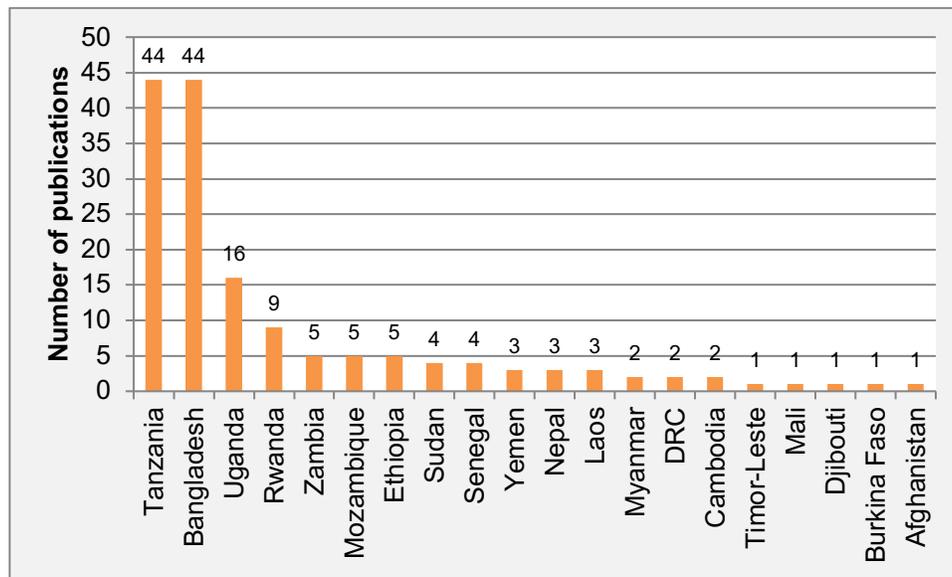


Figure 2.6 Technology focus of publications on entrepreneurship/SME development by country (2010-2018)⁶

Bangladesh and Tanzania were by far the most frequent focal countries for research on technical aspects of entrepreneurship/SME development. In Bangladesh, some of the papers were connected to research on the Union Digital Centers that have been set up in rural areas as a part of the Digital Bangladesh strategy to encourage e-government services and rural entrepreneurship. In Tanzania, there was a heavy emphasis on mobile financing, partly connected to the expansion of the M-Pesa service from Kenya to Tanzania.

When we looked only at SME papers, 12% (or 76) discussed the use of technologies by SMEs. We did not observe any increase in the numbers of these papers during the time period we studied. In 2010, eight SME-focused papers

⁶ Note the technology focus refers both to promotion of the use of technology to encourage entrepreneurship and SME development, and promotion of technology-based enterprises.

discussed the use of technology, and at the end of our period, in 2019, nine such papers were published.

A total of 3% (19 papers) of the SME papers did discuss technological development issues aimed at SME development. These papers, for example, analysed technology hubs in Africa; examined investment policies that support technology driven start-ups; discussed priority areas for SMEs based on information and communication technology; examined foreign technology licensing; and looked at financing for technology companies.

None of the documents on technology-based SMEs focused on women entrepreneurs, or looked at gender issues around technology development. A total of three SME publications looked at gender elements in the use of technology. These papers, for example, discussed the use of fintech algorithms to generate data on women borrowers to replace traditional collateral requirements; how to unlock finance for women-owned SMEs; or examined the process of e-commerce institutionalization among women-led SMEs.

Overall, then, there is a limited emphasis on technology in the entrepreneurship/SME development papers. There are relatively few such papers in our dataset, and their numbers did not seem to increase during the time period we examined. Many LDCs, including Bangladesh, Senegal, Cambodia, Rwanda and Uganda have singled out digital technology as a priority and have set up initiatives to promote SME technological development. The United Nations Sustainable Development Goal 9, to promote industry, innovation and infrastructure, includes the targets to enhance, in different ways, technologies in LDCs. Considering these initiatives, there is certainly scope to strengthen research on technology and SME development in LDCs.

2.4 Analysis of authors' affiliations

To get a better insight into the characteristics of the technology focused SME papers, we conducted an analysis of all 75 papers in terms of the authors' affiliations. The affiliations that the authors list for each paper were classified into either local authors or international authors. A paper was classified as involving local authors when author(s) were affiliated with institutions in the focal countries. A paper was classified as involving international authors when author(s) were affiliated with institutions outside the focal countries. It was noted in the dataset in which countries the international authors were affiliated. In cases where a

paper's authors were affiliated both locally and internationally, a paper was classified as having both local and international authors. We classified a paper having both local and international authors as involving international collaboration. If a paper involved several focal countries it was analysed with respect to the authors' affiliation for each country separately. A few papers were therefore counted multiple times in the dataset and the total number of SME technology papers has expanded to 103.

We also looked at the level of international collaboration reflected in the SME technology papers. A paper involving authors from both the focal country and other low-and-middle income country was classified as involving South-South collaboration. On the other hand, a paper involving authors from both the focal country and a high-income country was classified as involving North-South collaboration.

When we looked at the whole dataset of technology focused SME papers, only about 32% (33 papers) had authors with local affiliations. About 69% of the papers (71 papers) had international authors. Note, six of the papers had authors from multilateral organisations and we did not analyse these in terms of local or international affiliations. The most common international affiliations of the papers were South Africa, Australia, Malaysia and China. When we looked at the names of authors it seems likely that several of the papers were published by the diaspora from the focal countries. In general, the papers did not involve international collaboration. Only seven of the papers involved North-South collaboration and only five involved South-South collaboration.

The authorship analysis shows a relatively weak involvement of locally affiliated authors in the technology-focused research on the focal countries. It may reflect a limited capacity in the LDCs to do SME focused research on technology development and use. Further research is needed to establish if this is only valid for the technology focused papers, or if this applies to all the research of SME development focused on the LDCs.

This bibliometric analysis has demonstrated that there is some research available on entrepreneurship and SME development in the LDCs and it has provided an overview of its main features. In the next chapter we will discuss the results of case study research on SME development in four LDCs (Bangladesh, Cambodia, Ethiopia and Senegal). We will present suggestions for a needed research agenda

made by various experts active in promoting entrepreneurship in these countries and advise on a design of a research program aimed to stimulate SME development.

Chapter 3. Future Research

3.1. Research Agenda

All the stakeholders we interviewed for our four case studies in Bangladesh, Cambodia, Ethiopia and Senegal agreed that, broadly speaking, research was important to promote the development of SMEs in their countries. As one remarked, research is “mandatory, not optional!”. There was, however, considerable variation in what kind of research they were referring to, from market research, to surveys, to scholarly research, among others. The interviews also generated a variety of ideas on what the research should focus on and what gaps most needed to be filled. Described below are themes that emerged from our interviews in all four countries.

Baseline studies: Several interviewees emphasised that there was a lack of baseline studies and generalizable data on entrepreneurship and SME development in their countries. The interviewees talked about there being a huge gap in research in terms of concrete data on SMEs. Basic reliable data on how many SMEs there are in these countries, or information on their performance and financial status is missing. As one put it: “With SMEs, we have no information about who is doing what—they aren’t being counted. Good luck finding the turnover, the performance, the number of people they employ...”. This need for basic information was also mentioned as necessary for anyone, from investors to entrepreneurs to multilateral donor agencies, undertaking programs to foster SME development: “All the efforts should start from that. Different projects come and go, but they don’t [always] start with good baseline information.” The lack of baseline studies was also mentioned in Bangladesh, which has a relatively large body of research on SMEs. Some interviewees were of the opinion that although there are many studies available on SME development, they are commissioned by different agencies based on their own specific needs and tend to be quite small scale with non-representative samples.

The message was conveyed by interviewees that what is required is a large scale survey with a nationally representative cross section of samples looking not just at the rural/urban divide, but also digging deeper into the intricate layers and the interplay of different social factors. One interviewee emphasised that there is a need for a good national database on SMEs along with a systematic collection of data at regular intervals from a fixed panel of entrepreneurs, which can be useful for secondary research. The interviewees asserted that more systematic data collection should be coupled with setting up a reliable and accessible mechanism

for preserving and retrieving the data - a depository of primary data on SMEs and entrepreneurship.

The overall entrepreneurship ecosystem: Many interviewees suggested that a holistic and systematic research on the entrepreneurship ecosystem in their countries is urgently needed. They maintained that research is needed to address how to establish synergy among the different actors in the entrepreneurship ecosystem, who typically operate in siloes. They said such research could point towards drawing a broader canvas for policy makers and public and private players and in developing a strategy for the members of the ecosystem to coordinate their actions. As one interviewee remarked "I would say, there is no canvas before the policy makers where they can see how each piece fits together and work in a coordinated manner. That bigger canvas is absent."

Ideas for what this type of research should cover included the extent to which government initiatives are aligned with each other, as well as with the banking and financial sector, the legal landscape, taxation authorities and other bureaucratic structures, and others. Several people mentioned that having a better understanding of the barriers and structural problems faced by SMEs in their countries would make it clearer where to concentrate efforts to improve. "Really, what are those key constraints and blockage point [that are] not always obvious?"

One interviewee said that there is a need for research to understand the different sectors in the ecosystem from the perspective of entrepreneurs themselves. Entrepreneurs in different sectors - information and communication technologies, agriculture, rural, urban - have different circumstances, and different needs. The respondents said research is needed to explore in what ways different players - government, development organisations, financial institutions or industry, can support different kinds of entrepreneurs. Related to this was the suggestion, provided by several interviewees, to improve access to information for entrepreneurs, and research was needed on how efficiently to do that. "Another challenge is the availability of information. I think there are so many good opportunities...but it's just that people don't know about those services, so how to make this information available would be to really do something...". Some interviewees suggested creating a publicly-available resource, such as a coordinating ministry or an information clearinghouse, for SME issues and opportunities. This could allow government and the private sector to work together, and avoid duplication of efforts.

Not everyone agreed that more research was needed on the entrepreneurial ecosystems in the case study countries. One interviewee from Ethiopia, suggested that 'another' study of the ecosystem was unnecessary: "honestly, we know!", implying that such efforts can perpetuate a culture of studying, rather than implementing. This was echoed by an interviewee from Cambodia who said: "if

you're just doing like broad stroke, ecosystem research, then like, I would recommend not doing that." Instead the interviewee recommended that some niche within the ecosystem should be studied to deepen understanding on what is going on.

Women's entrepreneurship: When asked about the needs for gender-related research on SME development in their countries, nearly every respondent agreed that more research would be welcome. Research that identified and documented the barriers faced by women in the SME sector was one topic mentioned by several interviewees. This could be done across the board, or in specific sectors, or in particular regions. Either way, a better understanding of the challenges faced by women entrepreneurs is needed: "clearly there could be a research agenda associated with women and entrepreneurship, trying to identify some of the gender-specific constraints that that women face."

Hand in hand with this, was a need for more sex-disaggregated data collection. The statistical agency allows us to have data, but there is no data on women-run SMEs. The challenge is how we can have a survey where we have the women-run SMEs to better understand their specific needs." Even interviewees in Bangladesh where there is quite a bit of research on women and entrepreneurship felt that more research was needed as a lot of the existing research lacked depth. They felt that deeper behavioural studies are required – studies on what can be done to overcome social barriers; or what kind of literacy (financial, technological, in terms of access to market) women entrepreneurs need to be able to utilise existing services.

Another interviewee explained that one problem that women entrepreneurs face is lack of access to reliable information. Although in some of these countries there is a concentration of banks and other financial institutions including NGOs in rural areas offering loans to SMEs, women entrepreneurs often do not know what the best available terms are and therefore cannot bargain effectively. This gap in access to information and communication is largely unaddressed by the government and development partners. There is scope for research here in terms of an exploration on how to bridge this gap.

Another gender topic mentioned was that research is needed to design training to make bank employees, and other sources women need to seek advice and resources from, understand and appreciate the business dynamics of women run SMEs so that they can lend larger amounts of money to women entrepreneurs when they need it most. "...the mindset is so important...understanding that growing economically for women is something good for the society and for the country." There were also some mentions of the need for specific studies on different aspects of women's entrepreneurship such as a study on the kinds of businesses women entrepreneurs prefer and why; a study on women

entrepreneurs' access to the export market; a study on why there are so few women entrepreneurs involved in technology and what are the challenges they experience.

Technology: In our interviews we probed specifically on the need for further research into the tech sector and technology-focused SMEs. We encountered a range of responses to this question, with some focusing on the challenges faced by tech start-ups; some questioning whether there was an over-emphasis on technological solutions; and some who were excited by the possibilities that technology could provide.

Some interviewees pointed out that there is no research on technological areas like fin-tech or on tech start-ups and that in general there is a huge gap in research on technology. For example, they said, there is no baseline study of the start-up ecosystem, or women entrepreneurs in information and communication technologies – both of which need to be done. Another interviewee said there is a gap in knowledge on how to connect technology-based entrepreneurs to the broader entrepreneurial ecosystem. Bridging this gap could support them in a coordinated manner, in terms of policy, regulation, incentives and support-mechanism.

Interviewees also emphasised that much could be learned about how best to launch a successful tech start-up from in-depth case studies. “So it would be interesting to know what made that one work—what was the critical factor? Not a case study of one company, but maybe find 20 companies and tease out what worked.” Another interviewee echoed the same sentiment and said: , “they’re not all going to scale. Can we identify the successful ones and say, if they have these characteristics, they’re going to succeed?” Such an approach would also allow the local contextual factors to be taken into account: “the reality of how these entrepreneurs emerge—it’s not in a vacuum.” A case-study approach such as this has appeal for its ability to draw out a wide array of factors that contribute to success, as well as describing how barriers were overcome.

One key issue mentioned by several interviewees was finance for start-ups. Many banks in the countries we surveyed take a conservative approach and will not give financing without physical collateral. As a result, a common complaint of tech start-ups was access to finance: “Many financial sectors aren’t willing to give loans without collateral. For example, a graduate student had a novel idea, very innovative, but when they approached the [local financial institution], they wanted collateral. But they have ideas, not collateral!”

Training and skills-building: Another agenda for research that many interviewees identified was training of entrepreneurs – both in terms of research on developing appropriate training curriculum, content, material and also in terms of designing

incubation centres. Some pointed out that their countries needed a vast network of incubator centres which can offer training to entrepreneurs on how to become export oriented, how to utilise e-commerce, how to navigate through digital technologies, to help them expand their businesses. Some felt there was also a lack of research on how to help the cluster of initial stage start-ups to get to the next phase, in becoming investment ready. Many remarked that the potential is clearly present, but preparation is lacking: "We need to educate people more. The people, they have potential, but not capacity." Speaking about the young generation of tech entrepreneurs, another person we spoke with said "I would say, why have entrepreneurs such massive weaknesses when it comes to finance and accounting? Is it because many of them have a technical background and so they never learn accounting? [It] is really an issue."

One interviewee felt there is an urgent need for research on how to train SMEs and entrepreneurs on change management, especially in the context of the COVID crisis. They felt research is needed on how SMEs can repurpose their resources and survive, and also on the kinds of support they need from the government or the market during and after the COVID crisis.

Other issues: Our interviewees suggested a number of other issues that should be researched in order to promote SME development. Some interviewees expressed frustration with the lack of knowledge on which interventions are effective, with one commenting that "there's a gap in research on what works." This was particularly true of policymakers and representatives of donor agencies with whom we spoke, such as one who remarked that "from a donor perspective, I'd love to see a comparison of these different...models." Such an impact evaluation would, several felt, be a strong topic for research. "We only have feelings that this or that could work...so it would be very, very interesting to get to know...what kind of approach has the best impacts."

Some suggested that benchmarking and comparison studies would be valuable: "I think it would be useful to understand why our economies are so slow compared to [countries like] Nigeria and Ghana. The activity here is not as dynamic." Another suggested that studies of 'benchmark' countries would be valuable: "what is required would be comparative research. You need a little bit of benchmark countries, you know, countries to look up to, and see what is working better in those business environments."

Several interviewees pointed to the informal sector of the economy as one that is not well-understood or quantified, and that could benefit from research. "Well, the knowledge of the sector is not very good. So there is obviously a demand to better understand the sector, the opportunities, and the way to transform opportunities into realities." Some argued that without an understanding of the

range from the informal to the formal sector, it was difficult to make good policy and program decisions.

There clearly are a lot of gaps in the stock of knowledge on how to promote SME development in the LDCs. Our interviewees suggested diverse and rich research agendas that could guide the development of policies and programs to make the interventions to promote SME development as effective as possible. To gain some insight into the next steps to promote SME development we solicited advice from our interviewees on how to design and structure programs aimed at supporting research into SME development.

3.2 The design of programs supporting research on SME development

We asked our interviewees for suggestions on how to structure and design programs to support research on entrepreneurship. In general, the interviewees were not forthcoming with answers to the question, and often had to be prodded about who should be involved, and whether government and other entities should be direct participants in the research. This is partly because the majority of our interviewees were typically more concerned with running productive enterprises than conducting research and setting up research programs aimed at developing SMEs.

Most interviewees emphasised that when designing such a research program, a consortium of different types of actors should be involved. Such a program would benefit from setting up a platform where diverse perspectives that are needed to support SME development are shared and discussed. Many emphasised that such a consortium arrangement would also be necessary when running the program in each country and when designing specific research projects.

Academic institutes/Research institutions: Most of the interviewees saw a significant role for academic researchers and researchers at the countries' leading institutions dedicated to development research. Many mentioned that there were pockets of capacity on conducting research on economic development, and harnessing it more efficiently for SME development would be important. Some of the interviewees emphasised that this capacity was very uneven. They stressed that there was a need to strengthen this capacity and enhance the quality of data collected by academic researchers in this area. One investor highlighted the importance of empowering universities. The roles of the leading research institutions were emphasised by some interviewees, even those not employed by these institutions. One academic said, for example: "I would feel it would be best

for them [the leading economic development research institute in the country] to take a lead on that, that's what they do professionally. Right. I mean, I would certainly on the university side, we would be happy to get involved. But I don't think we should be the lead side."

There were voices in almost all the countries that warned that it was not a good idea to give the academics too free a reign in carrying out the research to support SME development. The academics in these countries were typically seen as too theoretical in their approaches, and out of touch with the needs of SMEs in their countries. As one government representative put it: "There's a divide where researchers stay at a theoretical level, and entrepreneurs are usually on the ground, conducting work." Another stated, "my personal recommendation is that it [the research] should not be fully led by universities you know. In Bangladesh there is a huge debate. So, university is still not fully aware of market sense. So they are more focused on ideology and academics and they are bookish; they still debate, the industry people say, okay, so you are very good at research but your research doesn't work for me." An entrepreneur was wary of involving academics as he/she felt they had a tendency to be too politically involved and not present a balanced perspective.

The message in general was that academics/researchers should definitely be involved in research programs promoting SME development, but other actors such as government and private sector should actively work with them to keep them on track.

Government: Government involvement in a research program promoting SME development was typically considered of high importance. It was emphasized that government should, at minimum, be made aware of the research and research program. Their early involvement would enhance the potential for implementation of the research findings. When we prodded and asked interviewees if government should be directly involved in implementing the research, for instance, as co-principal investigators, we heard opposing views. Some government representatives felt that it was a great arrangement to involve government directly, and said that their different ministries had research wings that could be involved. Other interviewees were sceptical of governments' direct involvement. One entrepreneur said, for example: "I'm gonna be really harsh on that one. Policymakers, I will not include them, because they tend to be really, really slow and they tend to act once everything is done." Time was certainly considered a challenge for government representatives' direct involvement in the research, and

they were considered too busy to be involved. There was also discussion of frequent turn-over in government jobs which could negatively influence the research. Another interviewee pointed out that direct government involvement could lead to a conflict of interest situation and limit the evolution of the work. "I can see more the disadvantages [of governments' direct involvement]. You don't want the conflict of interest of collaborating with people who maintain the status quo."

Some representatives of industry raised the issue that lack of trust between government and private sector was a hurdle for their involvement. "So the main hurdle is that one. How to set up a platform where both public and private sector work hand in hand. It's a matter of neither party trusting the other.... What spoils it all is the political agenda. Too many things are led by political priorities, as opposed to economic or social priorities."

In general, interviewees felt that the direct involvement of government in research was not a recommended approach. Several interviewees, both from government and other areas, felt that government representatives should be members of an advisory committee either for programs promoting research on SME development or particular projects supported by the program.

Private sector: The interviewees also conveyed a clear message that the private sector should be involved in any research program supporting SME development. To include the experiences and perspectives of firms themselves would ground the research and ensure that it was relevant to their needs. In a similar vein some interviewees were sceptical about the idea that the firms should be direct participants in the research. "With the private sector, I mean, it's a bit harder just because research is so far away from their day to day concern" One interviewee mentioned that the private sector included such diverse actors that it could be difficult to decide which ones should be involved in such programs. Some interviewees mentioned that representatives of private sector associations should be members of platforms shaping research programs promoting SME development. There were also some voices mentioning that investors should be around the table along with enterprises. "The structure that would help the entrepreneur, it's always a marriage between the two [entrepreneurs and investors], the two need to be around the table"

NGOs: Several interviewees also said it was important to involve the NGOs promoting entrepreneurship development in programs supporting SME

development. They were said to have direct experience in working with firms and understood their needs. As one government representative said: "I think sometimes local NGOs have more information than government. They are closer to the people and understand their needs better."

There are clearly various stakeholders that can strengthen programs that support research on SME development. The potential users of the research are diverse and their participation in shaping such research is important.

We also asked the interviewees whether they saw promoting international cooperation as an important design element of programs supporting SME development. While hardly any interviewees suggested international cooperation as a part of such programs without prodding, interviewees were generally in favour of including an element of international cooperation as a part of such a program. Many enthusiastically responded "I think so! Absolutely" or "the collaboration always helps."

The interviewees considered both cooperation with high-income countries, or North-South cooperation, to be important as well as cooperation with low-and-middle income countries, or South-South cooperation. As one interviewee in Ethiopia said "Whenever I present international best practices, if I talk about Kenya or Nigeria or South Africa, it definitely makes a bigger impact, than if I present something about France or the UK." While SME development experiences from Silicon Valley were often perceived to be inspirational, many interviewees felt that the context for firms there was starkly different from the context in their own countries. It underlined the importance of research informed by their local conditions and the potential value in harnessing South-South learning to support entrepreneurship and SME Development in the LDCs.

Chapter 4. Conclusion

This reports has demonstrated that research on SME development and entrepreneurship is limited in most LDCs. A large proportion of the research is focused on only four LDCs. In general, there is an increase in the volume of publications on these themes over time, so it is possible that the knowledge stock on entrepreneurship and SME development may become fuller. Most LDCs still have to start building up this body of knowledge, with over half the LDCs having

almost no research focused on entrepreneurial development. This lack of evidence may be detrimental for the development of their policies and practices.

While there is considerable research on gender and entrepreneurship when looking at SME development, there clearly are large gaps. As gender equality is emphasised strongly by most multilaterals and donors and many governments in LDCs, more research on gender and SME development is in high demand. The same applies to technology and SME development, emphasized widely by governments in LDCs and the donor community. There is very little research conducted on these topics and very few local researchers are involved. More research on these issues would strengthen the evidence base of policies promoting the development of SMEs and entrepreneurship in the LDCs.

There are various areas of research that could strengthen the policies and programs of governments, multilaterals, donors and others involved in promoting SME development in the LDCs. Having better baseline data on current status and sex aggregated data could help identify areas that need further attention and assist in tracking development. Further data on how to improve alignments, and break down silos in the entrepreneurial ecosystems in the LDCs would help identify efficient strategies to promote SME development adjusted to local contexts. Data on how to address challenges faced by women entrepreneurs would benefit these societies and help foster more equal SME development. These are some examples of many areas that a research program promoting SMEs in LDCs could focus on. More dialogue involving LDCs could sharpen these suggestions and encourage the development of a powerful program that truly expands the stock of knowledge for SME development in the LDCs.