FINANCIAL INCLUSION INDEX
Methodology

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Acronyms

GoZ	Government of Zimbabwe
MM	Mobile Money
MSMEs	Micro, Small and Medium Enterprises
MWSMED	Ministry of Women's Affairs, Community, Small & Medium Enterprise Development
NDS1	National Development Strategy 1
NFIS	National Financial Inclusion Strategy (Zimbabwe)
NGOs	Non-Governmental Organisations
NSSA	National Social Security Authority
SI	SIVIO Institute
SI-FINDEX	SIVIO Institute Financial Inclusion Index
US$	United States Dollars
ZIMRA	Zimbabwe Revenue Authority
GDP	Gross Domestic Product
SME	Small and Medium Enterprises

Introduction

In September and October 2021, SIVIO Institute (SI) conducted a survey of 1402 Micro, Small and Medium Enterprises (MSMEs) across the ten provinces of Zimbabwe. The survey looked to understand the level of inclusion of the formal financial system in Zimbabwe with a deliberate inquiry into the habits of MSMEs as they try to access and use formal and informal financial products. The aim was to understand the extent of access and reasons behind exclusions. The survey was the first of what will be regular surveys to determine (i) the progress and performance of the Zimbabwe National Financial Inclusion Strategy (NFIS) and (ii) prospects for achievement of Vision 2030. The full survey findings are available in the survey report (Chaora, 2022).

The index report, provides a detailed explanation of how the SIVIO Institute - Financial Inclusion Index, SI-FINDEX, was developed. The SI-FINDEX is an online tool that aggregates inclusion metrics and provides capabilities to compare trends across Zimbabwe's ten provinces. Furthermore, the SI-FINDEX compares inclusion across genders, age groups, and geographical regions and based on enterprise size. We could have surveyed ordinary citizens, but we wanted instead, to assess how enterprises are included (or excluded) since small enterprises are a strong indicator of economic growth in any economy.

Classification of MSMEs in Zimbabwe

The classification of MSMEs used in based on the outline provided by the Ministry of Women Affairs, Community, Small and Medium Enterprises (MWSMED). The classification first accounts for the 'subsector' of the enterprise and then uses a point system for any enterprise not captured in the description. The classification also considers size, gross assets and annual turnover and is summarised in Table 1.

Table 1: MSME Size Classification

Subsector	Size	Maximum Number of Employees	Maximum Gross Assets Excluding Immovable Property (US$)	Maximum Annual Turnover (US$)
Agriculture, Arts, Education, Financial Services	Micro	5	10'000	30'000
	Small	30	250'000	500'000
	Medium	75	500'000	1'000'000
Mining and Quarrying	Micro	5	50'000	50'000
	Small	40	1'000'000	1'500'000
	Medium	75	2'000'000	3'000'000
Manufacturing	Micro	5	10'000	30'000
	Small	40	500'000	500'000
	Medium	75	1'000'000	1'000'000
Construction, Energy	Micro	5	10'000	50'000
	Small	40	1'000'000	1'000'000
	Medium	75	2'000'000	2'000'000

Source: (Ministry of Women Affairs, Community, Small and Medium Enterprises Development, 2021)

SIVIO Institute Financial Inclusion Index

The SIVIO Institute Financial Inclusion Index measures financial inclusion according to the definition provided by the Reserve Bank of Zimbabwe (RBZ):

> *"The effective use of a wide range of quality, affordable and accessible financial services, provided in a fair and transparent manner through formal/regulated entities, by all Zimbabweans."*

Furthermore, it tracks MSMEs relationships with financial products across four (4) dimensions namely barriers, compliance, availability, and usage. The index assesses the formality of the enterprise and their access to formal financial services, - a prerequisite to be considered 'included' according to the RBZ definition of financial inclusion.

Outline of Dimensions

The choice of the four (4) dimensions was informed by a study on a multidimensional financial inclusion index that used Access, Usage and Barriers as their dimensions. (Cámara & Tuesta, 2014), and the G20 indicators of financial inclusion use Access, Usage and Quality to study financial inclusion from the financial sector perspective (World Bank, 2021).SI adopted its framework to capture the voice of MSMEs and use the information gathered from the Financial Inclusion Study to create the index. We included compliance as a dimension since the RBZ definition of inclusion rests on access to **formal** services. Compliance becomes an important dimension of financial inclusion in Zimbabwe given the use the use of formal financial products and services. In many instance the financial services sector only caters for registered enterprises only. Registration of enterprises creates a transaction history, which is then used to determine viability. Such information is crucial when deciding whether an entity is eligible to receive a loan or other financial service.

Table 2 shows the dimensions used to develop the SI–FINDEX with a narrative on the specific indicator falling into each dimension. These indicators served as a guideline in the development of our survey instrument.

The index scores were used to evaluate the level of inclusion across five categories which we called 'equality measures' which are:

1. **Gender**: Women vs men-owned enterprises
2. **Location**: Rural vs urban-based enterprises
3. **Enterprise Size**: Micro vs small enterprises
4. **Industry Represented**: Comparing enterprises in Agriculture vs Mining vs Retail vs Vending
5. **Age of Founder**: A comparison of the level of youthfulness i.e., those owned by founders who are youth (35 years and younger) and those owned by founders older than 35 years.

These five '**equality measures**' include the target groups, which the NFIS hoped to reach. The gender, age and location of the business owner are immutable characteristics meaning that the enterprise is already financially included or excluded (based on the index score) because of who owns the business. The aspiration is that this index will prompt further collaborative discussions to minimize the differences in financial inclusion.

In this iteration of the index, we did not compare medium enterprises due to data collection challenges experienced by enumerators. Medium-sized enterprises require more time between approach and the actual interview, and many had to be excluded from our final interviews because consent had not been granted.

Barriers: Any hurdle or obstruction that will affect the availability or frequency of use of financial service products.	**Compliance**: Status of registration with formal bodies

1. Restriction in use of bank accounts
2. Restrictions faced in the use of mobile money (MM) account
3. Reasons for not having financial products:
   • Lack of Finances/ affordability
   • Inflation
   • Lack of knowledge
   • Lack of adequate documentation
   • Trust of system
   • Bureaucracy
   • Level of understanding of laws and procedures
   • Products do not cater for needs
	1. Registration at the deeds office
	2. Registration with ZIMRA

Availability: The ability to acquire financial service products	**Usage**: The frequency of use of financial service products available to an MSME
1. Having a bank account 2. Time to open bank account 3. Having a MM account 4. Time to open a MM account 5. Having business insurance products 6. Having a pensions policy 7. Access to a savings facility 8. Registration on SME auction when needing foreign currency 9. Using formal sources for business information	1. Frequency of use of a bank account 2. Frequency of use of a MM account 3. Past application for loans 4. Aware of access to loans through MM 5. Aware of insurance products offered through MM account 6. Types of insurance accessed (staff, product and comprehensive) 7. Investments made on behalf of the business Access to formal funds for starting 8. Access to funds for ongoing-going business operations 9. Successful bids at the MSME auction

Source: SI-FIndex

Index Calculation

The financial inclusion score is calculated initially at the provincial level and then across each equality measure following an additive process specified in Figure 1 below:

Figure 1: Additive Index Process
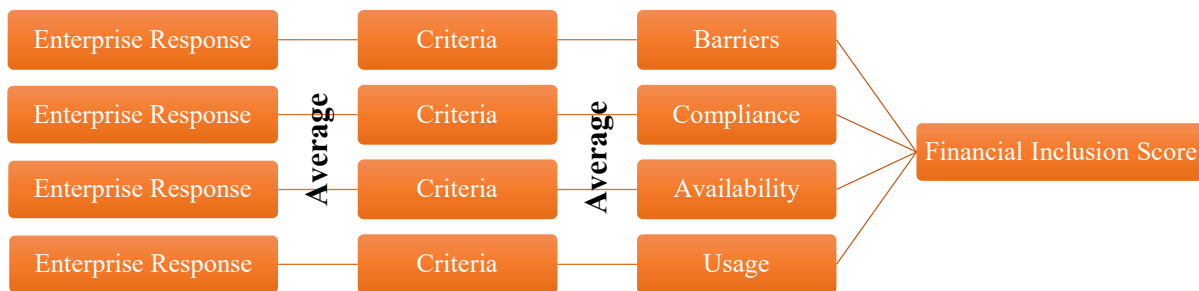
Each criterion scale was pre-defined between zero (0) and one (1), with one (1) being the ideal case, and zero (0) being the worst-case scenario. A selected criterion is calculated as the average value of individual responses across the province. The average of the criteria is then calculated as the dimension score, which is normalised again.

$$Dimension = sum\ (criteria)\ /\ n\text{-}criteria$$

The final financial inclusion score is then calculated as the normalised summation of the four (4) dimensions. This allows the final score to be converted to a percentage that is the percentage of MSMEs considered to be fully included.

$$FI = \{(1 - B) + C + A + U\} * 0.25$$

When representing scores, each score is represented as a percentage with zero (0) being the worst case of inclusion and one hundred (100) being the best case of inclusion. We chose to continue using percentages to show proportional representation of the whole sample.

Aspirational Level of Financial Inclusion

To achieve financial inclusion, MSMEs need to be compliant and should not encounter any barriers meaning that they can choose how/if they access and use formal financial products and services. The aspiration of the National Financial Inclusion Strategy 2016 – 2021 was to increase the level of financial inclusion to 90% within the country. Using this measure of 90%, the aspirational level of financial inclusion on the SI-Findex is 70% which is broken down as follows:

(i)   10% of enterprises face barriers
(ii)   90% of enterprises are compliant
(iii)   50% of enterprises have available financial products and services
(iv)   50% of enterprises use their products and services efficiently

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Index Development

The survey data was collected using a Survey Monkey form which was developed before the index was defined. The dimension criteria were classified once the survey was deployed and a normalised scoring (0-1 with 1 being the best value and 0 being the worst) was defined.

Once the data was collected, the csv file was downloaded and then cleaned for the index use. Entries were filtered out if they did not supply the number of employees, amounts of gross assets and annual turnover as these are the criteria for MSME classification. Due to this condition, the index only uses 1398 responses out of the 1402 responses captured in the survey.

The data was then cleaned and processed using R code which was developed while the survey was deployed. This code converted text entries (EG Yes, No) to numerical data (EG 1, 0) for easier comparative and summation analysis. The R code automated the index calculation defined above to produce a final aggregated data set grouped by province. Each criterion used in the final index score had to have a 95% completion rate of those who could respond. This total was not always 1398 as many questions involved intricate logic which affected expected response rate. There were several pre-determined criteria which were inadequately answered and were left out of the final calculations. These questions primarily involved the details around loan such as payback period and interest rates.

The same automation was run for data aggregated by province and equality measure and thus, different datasets were produced. Once these different datasets were created, they were loaded in the Microsoft Data verse to be visualised as a Power BI report.

The index was developed and published as a Microsoft Power BI report because SIVIO Institute typically uses Microsoft products for its research. Power BI allows the user to filter and interact with the data so that they can start to answer their own questions. Another main factor in the choice of platform is that the report has mobile compatibility using the Power BI app and can be embedded on a website when/if the platform is expanded.

The index is set up to guide the user through an understanding of the financial inclusion and MSMEs in Zimbabwe before diving into the index data. This is achieved by including several pages of information and definitions to ensure that each user will have a baseline understanding of financial inclusion of MSMEs in Zimbabwe. The index data starts with the national data and then gradually zooms in to look at an individual province, an equality measure and specific dimension criteria, respectively. These deep dives are sources of rich details of MSMEs financial habits and can be a source of further research on this sector.

Use and Limitations of the SI-FIndex

The financial inclusion index is intended for policymakers, financial service providers, MSME-focused advocacy organizations and other policy analysts. The index is a comprehensive analysis of MSMEs and their financial habits. It assumes that every enterprise needs core financial products like a bank account, a mobile money account, insurance, investment, and savings facilities for it to grow.

There are some limitations to the index data:

1. The index does not adequately assess the appropriateness of the loans being given to MSMEs which would include the interest rate, need for collateral and the payback period.
3. With regards to financing from non-traditional sources like microfinance institutions, NGOs and savings groups, the index does not explain whether it was a loan, a grant, or a donation. This classification would affect the pressure that an MSME faced during the payback period.
3. The index qualifies a formal business as one, which is registered as a business and registered with ZIMRA. This may be a limited definition, as it does not account for other registrations with NSSA for example.
4. Majority of enterprises included are micro enterprises which tend to be less included and so the national score is impacted by this distribution.

Despite these missing components, the index acknowledges that the MSME sector is mostly informal and argues that the financial sector must adapt itself to support these businesses by meeting them at their point of need i.e., where they are at in their phase of development.

Zimbabwe's Financial Inclusion Score

The index compares the level of financial inclusion across ten provinces which is then averaged as the level of financial inclusion in Zimbabwe. The nation's score of inclusion stands at 44 i.e., 44% of MSMEs are included in formal financial systems as shown in Figure 2 below. Suggesting that the remaining 56% are therefore excluded. The score is an aggregation of our compliance, barriers, usage, and accessibility dimension scores.
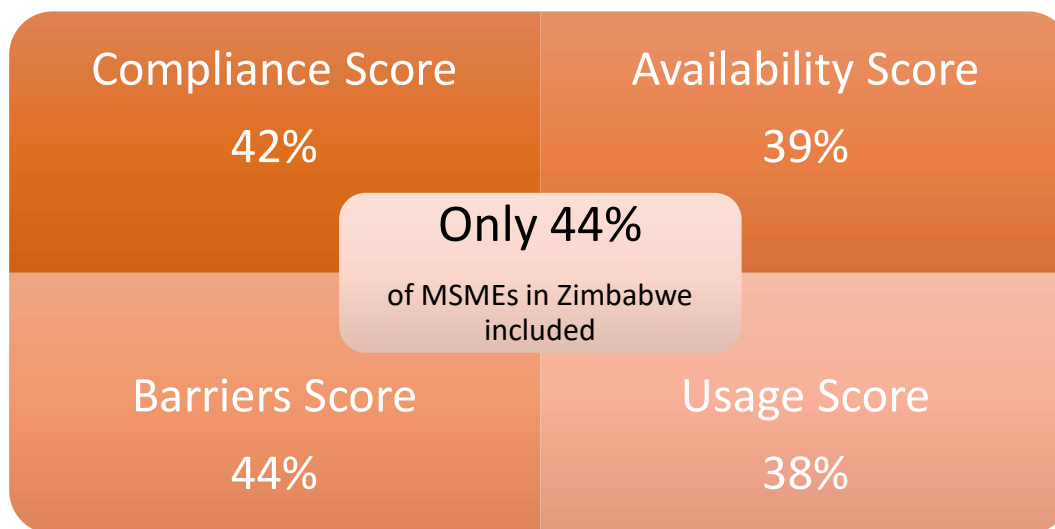
Compliance Score 42%	Availability Score 39%
Only 44% of MSMEs in Zimbabwe included	
Barriers Score 44%	Usage Score 38%

Figure 2: Zimbabwe's Financial Inclusion Score Using the 4 Dimensions

The level of exclusion is largely determined by the contribution of compliance and barriers such as lack of trust, lack of or poor information on how to access certain products and services, and restricted access to loans and alternative financing.

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Conclusion

The SI-Findex is the first rendition at quantifying financial inclusion on MSMEs in Zimbabwe, but the true value of the index is the information available for financial service providers which can be utilised to create financial products that are tailored for micro and small enterprises. As the Government of Zimbabwe constructs the new National Financial Inclusion Strategy for 2022 – 2025 this index is one source of input in shaping the needs of micro and small enterprises and will hopefully inspire an inclusive formulation process such that these target groups are supported in their effort to be more financially included.

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