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The Accessibility of Financing for Small Enterprises in the Precious Minerals Jewellery Manufacturing Sector

Phelé Marilyn Senaba Mokgadi, Sam Lubbe, Henry Mynhardt Soam

¹UNISA, Midrand, Pretoria, South Africa, ^{2,3}Stadio Higher Education, Krugersdorp, South Africa

saml@stadio.ac.za

Abstract. Purpose The purpose of the study was to rigorously examine the accessibility of formal or external financial assistance for small enterprises (SEs) in the precious minerals jewellery manufacturing sector, addressing the critical gap where their growth potential is stifled by a lack of adequate financial resources. The ultimate goal was to deliver actionable conclusions and tailored recommendations to inform financiers in the effective design of suitable small company finance scheme models. **Design/methodology/approach** The research adopted a quantitative research technique coupled with a descriptive study design. The investigation started with a comprehensive review of relevant literature concerning small enterprise finance and sector-specific risks. Data was systematically identified, classified, and modelled using robust statistical methods to ensure reliability. The focus was on gathering empirical evidence regarding application success rates, stringent collateral requirements, perceived risk, and informational asymmetry. **Findings/results** The research findings revealed several significant and quantifiable barriers to financial access. These constraints largely clustered around issues of stringent collateral demands, a perceived high-risk profile of the SEs by formal lenders, and complex application procedures that are poorly suited to the operational realities of small manufacturers. **Practical implications** The interpreted data and actionable conclusions are designed to directly inform and guide financiers. They can use these insights to design suitable future small company finance scheme models that foster financial inclusion and help unlock the economic potential of the precious minerals jewellery manufacturing sector. **Originality/value** The study provides empirical evidence and quantifiable data on specific financing barriers within the niche precious minerals jewellery manufacturing sector. By focusing on friction points like collateral, perceived risk, and informational asymmetry, and delivering tailored recommendations, it offers new insights for developing finance models that are better suited to the operational realities of small firms in this specific industry, thus filling a critical knowledge gap.

Keywords. Asymmetrical credit assessments, financial access, gold loan scheme, jewellery manufacturing, precious minerals, small enterprises

Introduction

The precious mineral jewellery manufacturing sector is a vital component of the national economy, driven by the constant demand from numerous buyers and sellers in the market for valuable metals (Geological Survey, 2022). However, this sector's growth potential—particularly among its small enterprises (SEs)—is frequently hindered by a lack of

accessible and adequate financial resources. In this environment, when a bank acts as a lender to an SE, it designs loan terms, such as high-interest rates or stringent collateral requirements, based on information that is often asymmetric or internal to the borrower (Cheng, 2015).

South Africa's Mineral Beneficiation Strategy (2011) highlights a critical national issue: most of the country's minerals are exported as raw ore or semi-processed products, resulting in low degrees of value addition. To address this, it is essential for the nation to support SEs through targeted entrepreneurial incentives (Su & Bui 2017). One such initiative is the Gold Loan Scheme, introduced in 2014 by the Industry Development Corporation (IDC) to finance the acquisition of gold metal by eligible jewellers at low interest rates (Gold Loan Scheme, 2014).

Connecting to this critical financial support mechanism, this research study has a dual aim. Firstly, it seeks to assess the actual availability of financial assistance to precious minerals SEs from official or external financial institutions. Secondly, the study aims to identify and model any existing constraints to provide recommendations for a more constraint-free financial scheme that can effectively unlock the sector's economic potential.

Problem Statement

The market for valuable minerals (or metals) is characterized by a persistent demand driven by the constant availability of numerous buyers and sellers (Geological Survey 2022). This dynamic provides a useful analogy for understanding the exchange between a small enterprise (buyer) and a bank (seller) of money, perceived as valuable capital. However, a crucial difference emerges: the bank, in its role, must design loan terms and make lending decisions based on asymmetric information—data about the small enterprise's true risk and financial health that is internal and not fully known to the bank (Cheng, 2015). Additionally, the bank may use price loan terms such as high-interest rates, and non-price loan terms, such as the execution of a rigorous loan contract or collateral requirements (Cheng 2015).

According to South Africa's Mineral Beneficiation Strategy (2011), the nation's minerals are exported as ores or semi-processed minerals rather than high-value intermediate to finished products, which results in low degrees of mineral beneficiation in the country's economy. As a result, it is critical for South Africa to support small enterprises through the creation of entrepreneurs' incentives and strategic workshops (Su & Bui, 2017). The Gold Loan Scheme is an initiative of the IDC that was introduced in 2014 to fund the acquisition of gold metal by eligible jewellers for the manufacturing process at low loan interest rates (Gold Loan Scheme, 2014). By connecting this study to the Gold Loan Scheme, this research study aimed to assess the availability of financial assistance to small enterprises from official or external financial institutions. In addition, the study also sought to create a method for recognizing and modelling constraints, if any existed, to provide a constraint-free Gold Loan Scheme or precious minerals fund.

South Africa's gold output climbed by 9.6% to 105 tonnes in 2021, up from 96 tonnes in 2020, resulting in total sales of R102.2 billion, a rise of 18.2% over 2020 (MCSA, 2022). Furthermore, South Africa is placed fourth in terms of contribution to global gold mineral reserves in 2021, after Russia, the United States of America, and Australia (MCSA, 2022). The research study problem is that the South Africa's gold production does not translate into the country's finished product jewellery value chain output. This situation could be due to a variety of factors, including but not limited to access to financial support and the red tape that small enterprises face when attempting to capitalise on available mineral resources (Department of Small Business Development, 2022).

South Africa is the world's tenth-largest gold producer, and the African continent's second largest after Ghana (Pan African Resources, 2022). Gold provided an anticipated 13% of the country's mineral income in 2021 (Pan African Resources, 2022). However, with improved strategic business investment activities to build the country's gold manufacturing jewellery sector, gold's contribution to the country's revenue might increase. South Africa's operational gold mines in 2021 were approximately 28, with an additional 58 mining projects in various stages of development (Pan African Resources, 2022), indicating that the production of gold raw material is not a future constraint (mineral resource limitation), but access to long-term financial support for small enterprises is a problem that this research study seeks to examine (Department of Small Business Development, 2022).

In 2021, the worldwide jewellery sector demand represented 55.4 percent of total world gold production of around 2,229 metric tons. The decision by the government through its policies, strategies, and plans to financially support the jewellery manufacturing sector is appreciated by the sector (Mineral Beneficiation Strategy of South Africa, 2011). Nonetheless, small enterprises are generally of the view that the crafting and design of South Africa's enterprise's financial incentives or loans have not considered small enterprises (Seda Integrated Report, 2019).

Research Questions

Research Question 1: To what extent is the Gold Loan Scheme financial assistance accessible to small enterprises? (To examine the degree and nature of accessibility of the Gold Loan Scheme).

Research Question 2: What are the criteria constraints, if any, experienced by small enterprises in accessing the Gold Loan Scheme? (To investigate whether the usual or common financial assistance barriers or constraints exist in the Gold Loan Scheme or are experienced by small enterprises' applicants for the Gold Loan Scheme).

Research Question 3: What is the minimum gold metal processed by each small enterprise's jeweller per month/3 months/6 months/9 months and 12 months? (To determine the minimum amount of gold metal to be set as a criterion).

Research Question 4: What is the relationship between application of a Gold Loan scheme, asset value and annual turnover of small enterprises in jewellery manufacturing? (To investigate the relationship between application of a Gold Loan scheme, asset value and annual turnover of small enterprises in jewellery manufacturing).

Research Hypotheses

The following null (H_0) and alternative (H_a) hypotheses were developed and tested for this study:

Hypotheses for Research Question 1:

H_0 : **Null hypothesis:(Null hypothesis):** The Gold Loan Scheme is accessible to small enterprises.

H_a : **Alternative hypothesis:** The Gold Loan Scheme is not accessible to most small enterprises.

Hypotheses for Research Question 2:

H_0 : **Null hypothesis:(Null hypothesis):** There are no criteria constraints experienced by small enterprises in accessing the Gold Loan Scheme.

H_a : **Alternative hypothesis:** There are multiple criteria constraints experienced by most small enterprises in accessing the Gold Loan Scheme.

Hypotheses for Research Question 3:

H_0 : Null hypothesis:(Null hypothesis): The minimum 4kg of gold metal (4kg of gold is the set minimum criteria of the Gold Loan Scheme) is processed by a small enterprise jeweller any period between 1 month to 12 months.

H_a : Alternative hypothesis: The minimum gold metal processed by a small enterprise jeweller is less than 4kg during any period between 1 month to 12 months (research investigation of a baseline on gold processed by most small enterprise jewellers, any period between 1 month to 12 months).

Hypotheses for Research Question 4:

H_0 : Null hypothesis:(Null hypothesis): There is a relationship between application of a Gold Loan scheme, asset value and annual turnover of small enterprises in jewellery manufacturing.

H_a : Alternative hypothesis: There is no relationship between application of a Gold Loan scheme, asset value and annual turnover of small enterprises in jewellery manufacturing.

Note on Variables for RQ4: The independent variable is the Gold Loan Scheme application, and the dependent variables are assets value and annual turnover.

Literature review

Enterprises size limits funding

Small enterprises repeatedly face complex constraints due to their size. According to the National Small Enterprise Act, 1996 (Act 102 of 1996), read with the National Enterprise Amendment Act, 2003 (Act 26 of 2003) and the National Small Enterprises Act (Act 29 of 2004) amended the definition of the small enterprise (business) reads as follows:

“...a separate and distinct business entity, together with its branches or subsidiaries, if any, including cooperative enterprises, managed by one or more predominantly carried on in any sector of subsector or the economy... and classified as a [very small] micro, a small or a medium enterprise...”

In addition, the criteria for small, medium, and microeconomic-sized enterprises (SMME) in the manufacturing sector by sector and turnover in South Africa (Seda Integrated Report, 2019) are as follows:

Access to finance for small enterprises

Enterprise funds and lack of access to finance are identified as one the challenges, especially for women and youth in business (Seda Integrated Report, 2019). Most small enterprises are applying for loans of less than R1 million, and of these, 44% of loan applications are less than R250 000 (Finfind Report, 2020). According to Nguyen (2020) lack of access to external finance, whether formal or informal, negatively impacts the growth and performance of all enterprises, whether small or large.

Equity markets such as initial public offerings (IPO), venture capital, and angel funds are an optional source of funds rarely open to small enterprises due to the perceived risk and nature associated with small enterprises (Yurkevich 2017). Consequently, most small enterprises in developing countries find equity financing undesirable or least preferred (Cumming and Groh 2018).

Formal and informal financiers

Banks are challenged when it comes to providing financial support for SMMEs as they treat all businesses as one market, thus applying traditional lending methods that use collateral

and financing credit scorecards as one-size fit all procedures. This procedure is disadvantageous to SMMEs applying for financial assistance from banks (Finfind Report, 2020).

Small enterprises under pressure will enter the informal financing market due to the business owners' desperations for finance and fear of being under-capitalised . Under-capitalization is when a business cannot receive the full financial capital required to operate or the business receives half of the capital (funds) it requires, which can lead to small enterprises' failure (Nguyen 2020).

Multiple barriers or constraints to accessing funding for small enterprises

According to the Finfind Report (2020), South Africa has an estimated SMME credit gap ranging from R 86 billion to R 346 billion. Furthermore, the report indicates that there are multiple traditional instruments, namely collateral, and credit records, used by financiers to assess small enterprise lending risk, thus posing major constraints on small enterprises securing funds (CDE Small Business Report, 2021). Alternatively, financiers impose a high-interest rate charge on small enterprise applicants.

The barriers or constraints facing small enterprises are as follows:

Lack of collateral by small enterprises may lead to a small enterprise finance gap. This is as most of the small enterprises in developing countries may not possess the security required for conventional collateral-based lending, nor adequate returns to charm formal venture capitalists and other risk investors (Nguyen 2020). Therefore, small enterprises that have no adequate collateral are automatically rejected by the formal financing market and forced into the informal financing market (Nguyen 2020).

Credit record linked to credit interest rate charge and Lack of flexible financing.

Small enterprise financiers continue to employ the conventional credit scoring methodologies intended to assess large enterprises on micro to small enterprises, and this has a severe influence on small enterprises such as rejection of financing or approval of finance with excessively high-interest rate charges (Finfind Report, 2020). As a result of the high transactional costs, small-business owners decide not to accept authorised financing (Owens and Wilhelm, 2017).

For small enterprises, selecting a source of business funds presents a challenge, there may be a wide range of sources to choose from, this includes private equity, business angels, public finance, etc., but they are not always practical to access. As a result, small enterprises often make use of their assets, informal investors (friends and relatives) and debt financing (Yurkevich, 2017).

According to the Centre for Development and Enterprise (CDE) Small Business Report (2021), in South Africa credit accessible to small and growing businesses is destructive rather than assisting. It is clogged with various hurdles that small enterprises must clear before being authorised for finance. Due to a lack of flexible financing, small enterprises cannot obtain the type of funding that they require to grow, such as small loans, revolving credit, and financing for short-term stock acquisitions (CDE Small Business Report, 2021).

South Africa's gold jewellery manufacturing finance gap.

In the gold metal jewellery manufacturing sector in South Africa, importantly small enterprises experience a financial gap due to the capital-intensive nature and higher risks associated with the sector (Mineral Beneficiation Strategy of South Africa, 2011). This led to the creation of the Gold Loan Scheme to mitigate such a financial gap and increase the country's gold jewellery production levels (Gold Loan Scheme, 2014).

Even though small enterprises welcome funding support from financiers, it is also perceived to be adding to the constraints experienced by small enterprises in accessing financing (Finfind Report, 2020). Hence, the present research study examines the accessibility of small enterprise financial support by investigating whether there are constraints to formal or external financial assistance, experienced by small enterprises in the precious minerals sector of South Africa.

Creating a conducive environment for gold jewellery manufacturing small enterprises to participate effectively in the country's economic activities will require the financial gap experienced by SMMEs to be closed (Finfind Report, 2020). This means that formal financiers will have to consider finding creative ways of assessing SMMEs for funding without disadvantage. As a result of the SMME being financially supported, the performance of the supported SMME in terms of sales and revenues will improve, and employment will expand. Furthermore, the country's Gross Domestic Product (GDP) will benefit (Kersten et al. 2017).

Research methodology

For this research study, the accepted primary research method to be applied is the Quantitative research approach. It is the suitable approach as first step is to examine the accessibility of the Gold Loan Scheme by small enterprises, followed by the investigation of whether there are usual or common financial assistance barriers that exist in the Gold Loan Scheme. Thereafter, determine the minimum amount of gold metal to be set as a criterion. Finally, to investigate the relationship between application of a Gold Loan scheme, asset value and annual turnover of small enterprises in jewellery manufacturing.

Population and sample frame

Random sampling entails defining the sample frame (F), deciding on the sample size (N), and then allocating consecutive numbers to the full sample frame ($F=N$) (Saunders et al. 2019). This is because the accessibility of the funding model (Gold Loan Scheme) under investigation is about the gold mineral or metal, thus small enterprises utilizing the gold mineral in the jewellery manufacturing process contact information (total population is 696) will be acquired from SADPMR.

The sample size required for accurate representation is a minimum of 153 operational small enterprises which represents a sample group from the total population of 696. A gatekeeper's letter were drafted by the researcher requesting SADPMR to approve the participation of operating small enterprises in the gold metal jewellery manufacturing process. Furthermore, the enterprises' contact numbers and email addresses were extracted from the SADPMR database.

Data Collection Method

For this study, the data collection method that was used is the electronic survey questionnaire form which was created and sent via email to participants for completion. The researchers designed an electronic survey questionnaire form guided by the already existing Gold Loan Scheme criteria. The three-section questionnaire form was created with the Gold Loan Scheme financing requirements. Pre-testing of the survey instrument was done before the actual test to reduce errors and help with the validity and reliability of the survey tool yielding dependable results (Saunders et al. ,2019).

Data analysis methods, techniques, and instruments

For this research study, a structured data collection technique (or predefined the data model) were applied as it is easier to manage and analyse, especially when conducting a mini dissertation. Furthermore, accepted quantitative data analysis techniques will be applied to include graphs, charts, and statistics to allow the researcher to properly examine the collected data.

Data analysis

Response rate

More than 100 small enterprises (120 surveys) performed among small enterprises involved in the production of precious mineral jeweler. This results in a response rate of 56.7%. This study's response rate is adequate since most surveys consider a response rate of 35% satisfactory (Nazarian, 2013:56).

Reliability analysis

Cronbach's alpha was used to assess the questionnaire's reliability (as indicated in Table 3). The aggregate Cronbach's alpha score was 78.4%. This is higher than Leedy and Ormrod's stated minimum cutoff of 70% (2014). This shows that the study's measurement tool (questionnaire) was dependable and capable of delivering consistent results repeatedly.

Table 1: Measuring reliability of the instrument using Cronbach’s alpha

Attribute	No. of items	Cronbach's Alpha (%)
Accessibility of the Gold Loan Scheme	3	70.3
Common financial assistance barriers	3	71.1
Minimum gold metal processed	5	93.6
Overall	11	78.4

Source: Authors, 2025

Background of participants

Data was analysed according to business activity, the validity of precious minerals jeweler’s permit or beneficiation license, length of time of business operating, number of full-time employees, and annual turnover to better understand participant profiles. It was discovered that 97% of the 68 people who took part in this survey said their small enterprises participate in the manufacturing of precious minerals jewelry. The remaining 3%, however, stated that they are not in operation. Nearly 96% of the 68 respondents claimed to hold a valid permit in precious minerals jewellery or a beneficiation license.

The length of time that selected small enterprises have been in the precious minerals jewellery manufacturing sector was shown as around 61.8% of the small enterprises that participated in this exercise had been in operation for more than 5 years. This is especially significant since respondents and businesses with more experience can provide legitimate opinions that are crucial to this study. Approximately 33.8% of respondents stated that their businesses had been in existence for 2 to 5 years.

The distribution of enterprises is based on the number of full-time employees. Out of a total of 68, about 91.2% declared that their small enterprises employ less than 10 people in

their operations. This serves to confirm that most businesses addressed in the study are small enterprises based on the number of people working in the operations.

esting normality of data

The Kolmogorov-Smirnova and Shapiro-Wilk tests were used to assess the normality of the data collected for the investigation. However, the Kolmogorov-Smirnova test was selected in this case because, according to Nahm (2016), it is more stable for big sample sizes of more than 60. Hypothesis testing was performed to test the normality of data collected for the study and was formulated as follows.

H₀: The data gathered for the study is normally distributed

H₁: The data gathered for the study is NOT normally distributed

Table 2 shows the results of the Kolmogorov-Smirnova test. All the p values for the qualities provided were less than 0.05 (p 0.05). The alternative hypothesis defeats the hull hypothesis. As a result, it is possible to conclude that the data acquired for the study is NOT regularly distributed. Non-parametric statistics such as frequencies, median, and mode are also useful in this scenario.

Table 2: Normality test using Kolmogorov-Smirnov test

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
GoldPeMonth	.460	68	.000	.491	68	.000
GoldPe3Month	.406	68	.000	.526	68	.000
GoldPe6Month	.420	68	.000	.571	68	.000
GoldPe9Month	.289	68	.000	.713	68	.000
GoldPeYr	.256	68	.000	.813	68	.000

Source: Authors, 2025

Analysis of the results using descriptive statistics

Determination of the minimum amount of gold metal to be set as a criterion

Perceptions of respondents on the quantity of gold that small enterprises process in a month, 3 months, 6 months, 9 months and in a year are shown in Table 5. About 77.9%, 72.1% and 72.1% of the respondents suggested that between 500g to 1kg of gold is processed in a month, 3 months, and 6 months, respectively. However, 51.5% and 44.1% of the respondents suggested that 500g to 1kg of gold is processed in 9 months and in a year, respectively.

However, it is known that few respondents processed 10 kg or more gold. Approximately 1.5% of respondents (in each example) stated that small enterprises process 10 kg or more of gold in a month, 3 months, 6 months, and 9 months. Small enterprises, on the other hand, process 10 kg or more of gold every year, according to 7.4% of respondents. Based on the data supplied, it can be shown that small enterprises process between 500g and 1kg of gold in each of the study's time periods.

It is evident that more than 70% of small enterprises normally process 500g to 1 kilogram of gold in one month, three months, and six months. Small businesses (each) process

between 500g and 1kg of gold in 9 months, according to slightly more than 50% of respondents, whereas only 44.1% suggest small firms process between 500g and 1kg of gold in a year.

However, less than 25% of respondents (as shown in each example) indicated that small enterprises process more than 1kg of gold in a month, 3 months, 6 months, 9 months, and a year. Setting a target of 1kg of gold to process for small enterprises (in a month, 3 months, 6 months, 9 months, and a year) is therefore an ambitious (and reasonable) minimum target that can encourage and inspire small enterprises in the precious minerals jewelry manufacturing industry to pursue.

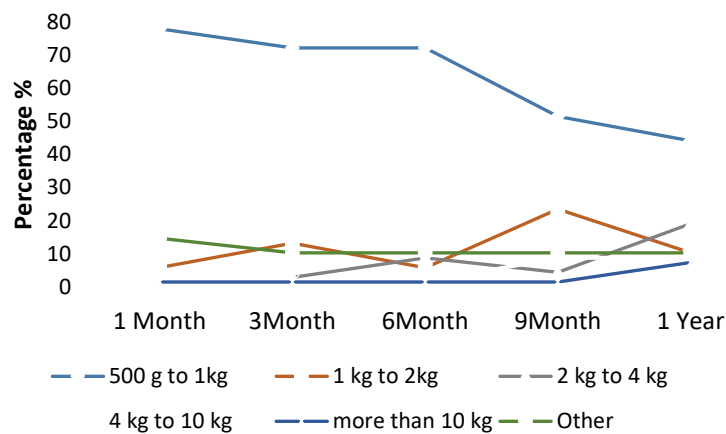


Figure 1: Perceived quantity of gold processed per given period
Source: Authors, 2025

Examination of the accessibility of the Gold Loan Scheme

Nearly 15% (14.7%) of the 68 respondents stated that their businesses had previously applied for the loan scheme. The remaining 85.3% stated that they did not apply for this loan scheme for a variety of reasons, which are discussed in the next subsection.

There are several reasons listed for not applying for the precious metals loan scheme. Out of a total of 68 respondents, about 37.9% indicated that they were unaware of the existence of the financing plan to assist small businesses in the precious minerals jewelry production industry. As indicated, the cause of failing to apply for a loan owing to a lack of awareness was placed #1. Similarly, around 29% of respondents acknowledged that the failure to apply for the loan was related to a failure to fulfill the annual output of 4kg of gold metal. This was seen to be excessive gold output for small businesses, which did not meet the prescribed criterion.

Approximately 21% of respondents acknowledged that their businesses had not previously applied for the loan scheme. However, no justification for the failure to apply for the loan scheme was offered. Approximately 6.9% of those polled agreed that they saw no reason to apply for such a loan. This explanation for not applying for a loan because there was no need for it was rated fourth.

An investigation of common financial assistance barriers in the access of Gold Loan Scheme

The finance barriers that small businesses have encountered is shown below, out of a total of 68 respondents, around 34% agree that a lack of flexible financing that includes all

jewelry raw materials is one of the common barriers that small enterprises in this industry encounter. A

As indicated, the most common barrier was a lack of flexible finance. Around 25.0% of respondents said that a lack of collateral was one of the most shared challenges encountered by small enterprises in the precious minerals jewelry production sector (this was ranked second).

The total enterprise asset value (excluding working capital) for small enterprises in the precious jewelry manufacturing sector. According to respondents, the majority (38.2%) of enterprise assets were valued at R2.5 million or more. Furthermore, 26.5% of respondents estimated the business assets to be worth R 0.5 million. In contrast, 13.2% and 8.8% of respondents estimated that the enterprise assets were worth R1.5 million and R1 million, respectively.

Hypothesis testing

Given that nonparametric statistics were applicable in this data, Chi square test was used to investigate the relationship between application of a loan, asset value of an enterprise and annual turnover of an enterprise. The first hypothesis was formulated as follows.

Hypothesis statement 1

H₀: There is no association between application of a loan and asset value of a small enterprise in the precious minerals' jewellery manufacturing.

H₁: There is an association between application of a loan and asset value of a small enterprise in the precious minerals' jewellery manufacturing.

Cross tables (shown in Table.9) were employed prior to the Chi square test to determine whether there is a relationship between the row variable and the column variable (application of a loan and asset value). Small enterprises can either apply for a loan or choose not to apply.

The relationship between loan application and asset value of a small enterprise in precious metals jewellery production was examined using Chi square, as illustrated in Table 10. Since the Chi squared test was violated because the cell counts of 58.3% above the 20% barrier, the Likelihood Ratio was used instead of Pearson Chi-Square, as shown in Table 4.10. It can be observed that the asymptotic p value (Likelihood Ratio) was less than 0.05 ($p < 0.05$), therefore **H₀** was rejected in favor of **H₁** and it can be concluded that there is statistical evidence to suggest a significant association between the application of a loan and asset value existed. As a result, the application for a gold loan scheme is heavily reliant on the asset value of a small enterprise.

Table 3: Investigating association between application of a loan and asset value

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	9.783 ^a	5	.082
Likelihood Ratio	12.386	5	.030
Linear-by-Linear Association	5.547	1	.019
N of Valid Cases	68		
a. 7 cells (58.3%) have expected count less than 5. The minimum expected count is .20.			

Source: Authors, 2025

The level (magnitude) of the relationship between loan application and asset value was determined using Phi Cramer's, as shown in Table 8. The application of a loan was shown to have a modest level of relationship with the asset value of small enterprises in the precious minerals jewellery sector. With a positive correlation coefficient of 0.379, the application of a loan and asset value revealed a significant link (p 0.1). As a result, the greater the value of a company's assets, the more probable it is to qualify for a loan scheme.

Table 4: Measuring level of association between application of a loan and asset value using Cramers

		Value	Approx. Sig.
Nominal by Nominal	Phi	.379	.082
	Cramer's V	.379	.082
N of Valid Cases		68	

Source: Authors, 2025

Hypothesis statement 2

H₀: There is no association between application of a loan and annual turnover of small enterprises in the precious minerals' jewellery manufacturing.

H₂: There is an association between application of a loan and annual turnover of small enterprises in the precious minerals' jewellery manufacturing.

Cross tabulation (shown in Table 9) was used to get an indication if there is relation between the row variable and the column variable (application of a loan and annual turnover). It can be observed in Table 5 that as the annual turnover increases, more small enterprises seem not to apply for a loan scheme to finance their operations.

Table 5: Cross tabulation of application of a loan and annual turnover

	Turnover	Applied for a loan		Total
		Yes	N	
Annual Turnover	R2.5m or more	0	3	3
	R1.5m	4	18	22
	R1 m	2	4	6
	R 0.5 m	3	0	3
	Other	1	33	34
Total		10	58	68

Source: Authors, 2025

The relationship between loan application and annual turnover of small enterprises in precious metals jewellery production was examined using Chi square, as shown in Table 4.13. Because the Chi squared test was violated because the cell count of 66.7% above the 20% threshold, the Likelihood Ratio was employed instead of Pearson Chi-Square, as shown in Table 13. The asymptotic p value (Likelihood Ratio) was less than 0.05 (p 0.01), thus **H₀** was rejected

in favor of H_1 , and it could be stated that there is statistical evidence to show a substantial correlation between loan application and annual turnover exists. Thus, loan applications are strongly influenced by the annual turnover of small enterprises in the precious minerals' jewellery manufacturing.

The magnitude of the relationship between loan application and annual turnover was calculated using Phi Cramer's, as shown in Table 14. The application of a loan was shown to have a strong relationship with the annual turnover of small businesses in precious minerals jewellery manufacturing. Application of a loan and annual turnover demonstrated a significant association ($p < 0.01$) with a positive correlation coefficient of 0.588. As a result, the more turnover a business generates, the more likely it may qualify to apply for a loan.

Table 6: Measuring level of relationship between application of a loan and annual turnover

		Value	Approx. Sig.
Nominal by Nominal	Phi	.588	.000
	Cramer's V	.588	.000
N of Valid Cases		68	

Source: Authors, 2025

Conclusion and recommendations

The research methods employed are descriptive statistics to comprehend the symmetry and stability data, such as measures of central tendency, variation, and skewness (Dancey and Reidy 2020, Hair et al, 2018). While correlation and regression analysis are used in inferential statistics (Dancey and Reidy 2020, Hair et al, 2018).

The analysis was focused on providing answers to the following research objectives:

To examine the accessibility of the Gold Loan Scheme by small enterprises:

Findings: The independent variable/s is the small enterprises, and the dependent variable/s is the Gold Loan Scheme. The relationship is that small enterprises need financial support, due to the lack of suitable loan schemes in the formal financial market. The Gold Loan Scheme was created to address the absence of financial support the small enterprises. The findings on the loan scheme show that the scheme is mostly not accessible to its intended beneficiaries (target market).

To investigate whether criteria constraints are experienced by small enterprises when applying for the Gold Loan Scheme:

Findings: The independent variable/s is the Gold Loan Scheme, and the dependent variable/s are the multiple barriers to funding experienced by small enterprises i.e., the highest scored barrier is minimum gold metal processed and the lowest scored barriers are common financial assistance as barriers and accessibility of the Gold Loan Scheme (i.e., not only to finance gold but to include silver, platinum, precious and semi-precious stones). The relationship is that the Gold Loan Scheme as the independent variable presents multiple barriers to accessing the loan scheme for small enterprises.

To determine the minimum amount of gold metal to be set as a criterion for accessing the Gold Loan Scheme:

Findings: minimum threshold is uncovered to be 1kg (Table 4.4). The independent variable is the Gold Loan Scheme 4kg of gold metal set minimum criteria, and the dependent variable/s is the gold metal quantity processed in any period between 1 month to 12 months. The relationship is the Gold Loan Scheme 4kg of gold metal set minimum criteria (independent variable) can only be accessed by micro, small, small, medium, and large enterprises that can process the minimum 4kg of gold metal at any period of the year. The effect is that most small enterprises process less than 4 kg per annum year, as they depend on contracted work and do not mass produce gold jewellery finished products.

To investigate the relationship between application of a loan, asset value and annual turnover of small enterprises in jewellery manufacturing; hypotheses and findings are as follows:

Table 7 Hypotheses statements and Findings

Hypothesis statement 1		
Hypothesis H₀	Hypothesis H₁	Findings
H₀ : There is no association between application of a loan and asset value of a small enterprise in the precious minerals' jewellery manufacturing.	H₁ : There is an association between application of a loan and asset value of a small enterprise in the precious minerals' jewellery manufacturing.	It was shown that when asset values rise, less and fewer small enterprises appear to seek loan schemes to fund their operations. It can be observed that the asymptotic p value (Likelihood Ratio) was less than 0.05 ($p < 0.05$), therefore H₀ was rejected in favour of H₁ and concluded that there is statistical evidence to suggest a significant association between the application of a loan and asset value existed. As a result, the application for a gold loan scheme is heavily reliant on the asset value of a small enterprise. The application of a loan was shown to have a modest level of relationship with the asset value of small enterprises in the precious minerals jewellery sector. With a positive correlation coefficient of 0.379, the application of a loan and asset value revealed a significant link ($p < 0.1$). As a result, the greater the value

		of a company's assets, the more probable it is to qualify for a loan scheme.
Hypothesis statement 2		
Hypothesis H₀	Hypothesis H₁	Findings
H₀ : There is no association between application of a loan and annual turnover of a small enterprise in the precious minerals' jewellery manufacturing.	H₁ : There is an association between application of a loan and annual turnover of a small enterprise in the precious minerals' jewellery manufacturing.	<p>It was observed that as the annual turnover increases, more small enterprises seem not to apply for a loan scheme to finance their operations (or even expansion of their enterprises).</p> <p>The asymptotic p value (Likelihood Ratio) was less than 0.05 (p 0.01), thus H₀ was rejected in favour of H₁, and it could be stated that there is statistical evidence to show a substantial correlation between loan application and annual turnover exists. Thus, loan applications are strongly influenced by the annual turnover of small enterprises in the precious minerals' jewellery manufacturing.</p> <p>The application of a loan was shown to have a relationship with the annual turnover of small businesses in precious minerals jewellery manufacturing. Application of a loan and annual turnover demonstrated a significant association (p < 0.01) with a positive correlation coefficient of 0.588. As a result, the more turnover a business generates, the more likely it may qualify.</p>

Recommendations

Review of the Gold Loan Scheme; The research findings demonstrated that according to the respondents who participated in the questionnaire survey the minimum gold processed at

any period from one month to 12 months or an annum is 1 kg. As a result, it is recommended that the Gold Loan Scheme administrators reduce the 4kg minimum set criterion to a 1 kg minimum threshold in order to eliminate the 4kg gold minimum quantity as a barrier to entry.

The existence of multiple barriers or constraints in the Gold Loan Scheme; The research findings reveal that several barriers to accessing the Gold Loan Scheme exist, with the highest rated barrier being minimal gold metal being processed and the lowest being typical financial aid barriers and accessibility to the Gold Loan Scheme. As a result, lenders are recommended to evaluate the asymmetric system used for assessing small enterprises for financial loans by incorporating current techniques of application assessment such as psychometric testing. Create flexible short-term loan schemes that do not demand high-value assets as collateral. Consider mobile assets as collateral as well.

Creation of online platform for marketing and promoting financial support schemes for small enterprises; As shown the majority of small enterprises in the jewellery manufacturing industry are unaware of the loan scheme's existence. As a result, it is recommended that an online platform be developed to promote all small enterprises financial support options available in South Africa. The platform must have an internet connection to the lender's website.

Online readiness financial access course: After analyzing all of the respondents' data and discovering that the majority of small businesses do not qualify for loan schemes aimed at them, it is critical that small businesses rejected for loan schemes be mentored or trained by the scheme custodian or lender in order for the enterprise to apply again in the near future.

Conclusion

The traditional asymmetrical credit evaluations used by private and governmental financiers on small enterprises, they are also confronted with shifts in both local and global economies. Interest rates, exchange rates, inflation rates, tax rates, supply and demand, and the pandemic, that is, Covid 19, are all economic variables driving business growth. These variables impact company decisions and put corporate resilience to the test under such severe economic situations, whilst in favourable ones, living standards and demand may improve, creating more opportunities for enterprises to thrive (Seda Integrated Report, 2019).

Lack of access to funding presents a direct influence on the expansion of micro to small enterprises and prevents them from exploring economic prospects (Finfind Report, 2020). Consequently, both public and private financiers must be deliberate in their efforts to create channels in the business financial support market to accommodate small enterprises unique characteristics (CDE Small Business Report, 2021). This can be accomplished by collaborating on the development of an asymmetrical credit assessment model that considers the distinct environment of small enterprises. In addition, to empower small enterprises that have been rejected for funding by mentoring them to a level at which they can qualify and receive approval for business financial support soon.

Ethical consideration: We declare that the study was not human or animal research or the study was determined to be non-human subjects research.

During the preparation of this work, the authors used Gemini, XLS and SPSS to check language, draw figures and tables. The content was reviewed and edited by the authors, who take full responsibility for its accuracy.

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