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GORDON INSTITUTE  
OF BUSINESS SCIENCE

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University of Pretoria

**Risks and rewards of providing “reverse factoring” as a  
financing technology for small and medium-sized enterprises  
in South Africa**

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A research project submitted to the Gordon Institute of Business Science,  
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## Abstract

The object of this research was to determine the risks and the rewards of providing reverse factoring as a financing technology for small and medium-sized enterprises (SMEs) in South Africa. There have been a number of financing technologies provided to SMEs in South Africa and reverse factoring has not been taken advantage of. The financing technologies that have been offered range from trade credit, to collateralised loans, overdraft facilities, etc. Most if not all of these technologies are based on some form of security which is usually the SME's immovable assets. This research project contributes to the body of knowledge that deals with SME finance. A survey was done to find out the views of SME owners, procurement managers, finance managers and financiers concerning the risks and rewards of providing reverse factoring to SMEs. Ten propositions were formulated. A qualitative research methodology, using semi-structured interviews was used to rate the risks and rewards associated with providing reverse factoring.

The results showed that the rewards far outweigh the risks by a ratio of 1: 0.6. For reverse factoring as a financing technology this is positive and is worth pursuing. The risks of lack of collateral and the risk of fraudulent invoices are the most prevalent.

A boost in economic activity in the SME space and the provision of much needed liquidity were the most noted rewards of providing reverse factoring to SMEs in South Africa.

**Keywords:** Reverse factoring, accounts receivables, short-term financing, cash flow management

## Declaration

I declare that this research project is my own work. It is submitted in partial fulfilment of the requirements for the degree of Master of Business Administration at the Gordon Institute of Business Science, University of Pretoria. It has not been submitted before for any degree or examination in any other University.

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Mthoko “Tito” Mbatha

1 August 2011

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## Abbreviations

ASGISA – Accelerated Shared Growth Initiative of South Africa

BBBEE – Broad Based Black Economic Empowerment

Big buyer – Any blue-chip company or government department

DFI – Development Finance Institution

DTI – Department of Trade and Industry

FDI – Factors Chain International

IPAP – Industrial Policy Action Plan

Nafin – Nacional Financiera

PFMA – Public Finance Management Act

SME – Small and medium-sized enterprise



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## Chapter 1: Introduction to the research problem

### 1.1 Introduction

All over the world factoring is increasingly seen as the solution to financing small and medium-sized enterprises (SMEs). This is because the current forms of financing are more about collateralised financing. Under this type of financing security is required before financing can be done. Thus, the challenge is that most SMEs do not have the collateral to pledge to the banks as security. This is particularly true for South Africa.

Factoring has proved to work for SMEs in other countries because it by-passes the ordinary security required by banks and other financial institutions. Factoring recognises the accounts receivable of SMEs as an asset that can be used and/or sold for immediate cash Klapper (2004, 2005, 2006).

In South Africa in particular most SMEs are not credit worthy and hence cannot access financing from traditional lenders. Factoring allows high-risk suppliers to transfer their credit risk to their high-quality buyers. Research has discovered that factoring is particularly useful in countries with weak judicial enforcement and imperfect records of upholding seniority claims because receivables are sold rather than collateralised Klapper (2005). Factored receivables are not part of the estate of a bankrupt SME Klapper (2004). Studies have found that

factoring is big in countries with efficient credit information bureaus and large economic development and growth Klapper (2006).

The research under study will look at “reverse factoring in South Africa” because it is the form of factoring that mitigates the risk of borrowers’ information opacity in the business environment with weak information infrastructures when receivables from high-quality buyers are factored.

Information opacity is relevant to the South African situation. This is due to the legacy systems in the country’s political and economic landscape. In this study, the model that will be used as a benchmark for efficient reverse factoring is the Nacional Financiera (Nafin) model from Mexico. There are many similarities between South Africa and Mexico, because:

1. Mexico is a developing country like South Africa;
2. Mexico’s economy was in shambles following the Asian crisis which happened about the same time that South Africa ended apartheid and entered democracy; and
3. Mexico’s economy, like South Africa’s, is highly dependent on the SME sector.

The South African government through its Broad Based Black Economic Empowerment (BBBEE) policy has reiterated that SMEs need access to finance in order to grow; yet, collateral cannot be pledged by many South African SMEs because most of them were not allowed to participate in the economy for more than 300 years. This is why “on-line reverse factoring” needs to be researched

in order to ascertain whether it can help to level the playing field in terms of commerce in South Africa.

## **1.2 Background to the research problem**

Klapper (2004) researched “reverse factoring” in Mexico. A challenge for many SMEs in South Africa is access to finance. More specifically, SMEs in South Africa close down because they cannot finance their working capital cycles. This is due to the fact that when SMEs supply Government, parastatals and blue-chip companies they are paid in deferred payment terms. Big buyers pay their SME suppliers in 30, 60 and 90 days. For this duration, the sellers (SMEs) issue an invoice recorded for the buyer as an accounts payable and for the seller (SME), as an accounts receivable, which is an illiquid asset for the seller until payment is received Klapper (2006).

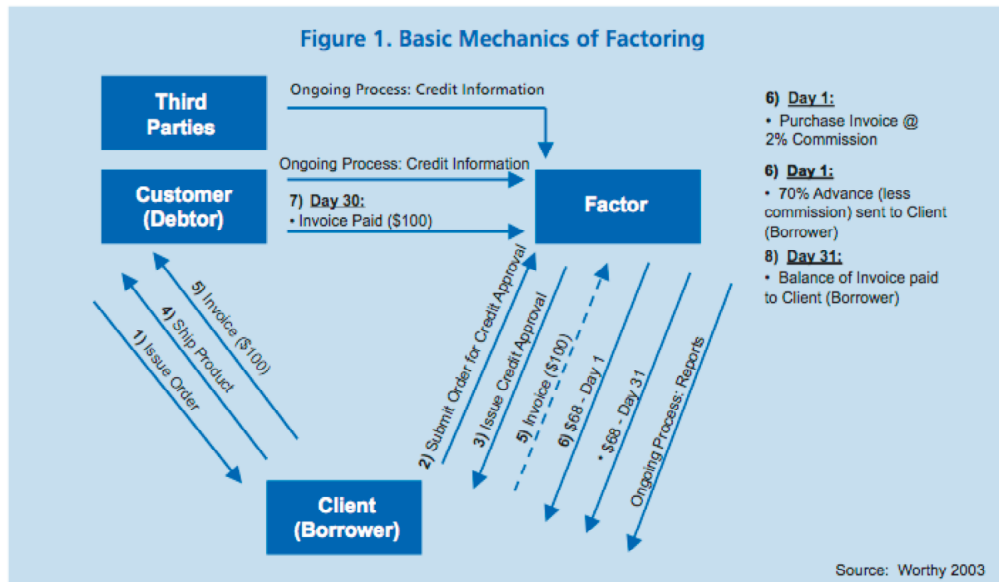
SMEs cannot afford to wait for these periods before receiving payment. While the SMEs wait for payment from big buyers, they have to pay staff salaries, tender for more work and pay monthly expenses.

### **1.2.1 What is factoring?**

Figure 1 below gives a schematic representation of the factoring process.



**Figure 1: Basic mechanics of factoring**



### 1.2.2 Types of factoring

Depending on the method of collection and debt management, there are the following types of factoring:

- **Partial factoring:** the invoices are selected, but not all are accepted for buying; the obligation to cash the invoices belongs to the customer because the factor does not do the administration thereof;
- **Total factoring:** all the invoices are taken by the customer and administrated by the factor. The factor will cash the invoices from the debtor, finance the operation and cover the credit risk.

Depending on the moment of payment of the debts by the factor, there are the following types of factoring:

- **Old-line factoring (classical factoring):** the factor pays the invoices the moment it takes them;
- **Maturity factoring:** the customer's debts are paid at the moment of their maturity;
- **Mixed factoring:** the factor pays a part of the invoices' value in advance (not less than 85% of their value), the difference being paid at a later date.

Depending on the participants in the factoring operation, there are the following types of factoring:

- **Domestic factoring:** at the basis of this operation there is no international trade contract, it is done in the same country and there is a single factor;
- **International factoring:** if there is an international trade contract, there will be two factors (the import one and the export one) in the operation. The export factor buys the exporter's debts.

Depending on the bank's recourse weight on the adherent, there are the following types of factoring:

- **Non-recourse factoring:** offers the client full credit management service cover on approved debts against the eventuality of the factor being unable to secure full payment of factored invoices;
- **Recourse factoring:** involves a factor taking responsibility for its clients' debt collections, but retaining the right to seek full recourse from the

client for any bad debts. The client may buy credit insurance separately but no cover is provided by the factor;

- **Reverse factoring:** involves the buy in of the big buyer. The big buyer provides the list of its small suppliers to a factor so that factoring can happen;
- **Invoice discounting:** enables SMEs to borrow on the security of invoices addressed to customers. Since the invoices are drawn on customers, which may be larger, more credit-worthy organisations, this source of financing can be attractive to SMEs.

**Table 1: Accumulative factoring turnover (for FCI members) – mil. Euro**

**Table 1. Accumulative Factoring Turnover (for FCI members) - mil. Euro**

	2004	2005	2006	2007	2008
Invoice Discounting	97,543	160,141	193,829	219,914	206,915
Recourse Factoring	89,808	116,626	139,978	168,683	167,860
Non-Recourse Factoring	191,467	232,683	247,818	237,585	243,413
Collections	15,549	13,120	12,604	13,934	25,940
Total Domestic Factoring	394,367	522,569	594,229	640,116	644,128
Export Factoring	32,405	42,073	59,302	68,424	88,244
Import Factoring	11,160	13,190	14,944	17,416	22,363
Export Invoice Discounting	13,997	21,716	24,179	32,430	33,801
Total International Factoring	57,562	76,979	98,425	118,271	144,408
Total Factoring	451,929	599,548	692,654	758,386	788,537

Source: FCI Annual Review, 2009

**Table 2: Total factoring volume by country – mil. Euro**

**Table 2. Total Factoring Volume by Country (mil. EUR)**

	2002	2003	2004	2005	2006	2007	2008
Belgium	9,391	11,500	13,500	14,000	16,700	19,200	22,500
Bulgaria	0	0	0	0	35	300	450
Croatia	0	0	28	175	340	1,100	2,100
Czech Republic	1,681	1,880	2,620	2,885	4,025	4,780	5,000
Finland	9,067	8,810	9,167	10,470	11,100	12,650	12,650
France	67,398	73,200	81,600	89,020	100,009	121,660	135,000
Germany	30,156	35,082	45,000	55,110	72,000	89,000	106,000
Greece	2,694	3,680	4,430	4,510	5,230	7,420	10,200
Hungary	580	1,142	1,375	1,820	2,880	3,100	3,200
Italy	134,804	132,510	121,000	111,175	120,435	122,800	128,200
Norway	7,030	7,625	8,620	9,615	11,465	17,000	15,000
Poland	2,500	2,580	3,540	3,700	4,425	7,900	7,800
Portugal	11,343	12,181	14,700	16,965	16,886	16,888	18,000
Romania	141	225	420	550	750	1,300	1,650
Russia	168	485	1,130	2,540	8,555	13,100	16,150
Spain	31,567	37,486	45,376	55,515	66,772	83,699	100,000
Sweden	10,229	10,950	14,500	19,800	21,700	21,700	16,000
Turkey	4,263	5,330	7,950	11,830	14,925	19,625	18,050

Source: FCI (2009)

**Figure 2: Total factoring volume (2008)**

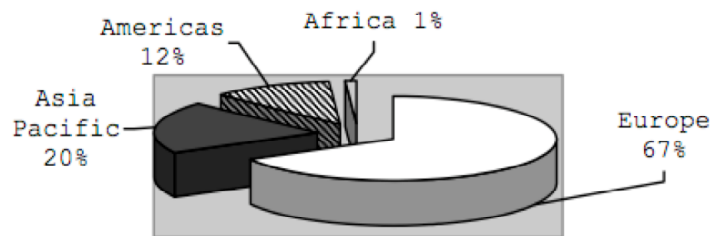


Figure nr 2. Total factoring volume (2008)  
Source: Factors Chain International, Annual Review, 2009

Factoring is used in developed and developing countries around the world. In 2004, the total worldwide factoring volume was over US\$ 860 billion, as the result of an impressive growth rate of 88% since 1998, Factors Chain International (FCI) (2007).

In some developed economies, such as the United States and the United Kingdom, its importance as a primary source of working capital finance tends to be concentrated in selected industries. In South Africa, the sectors that will mostly be in need of factoring are security companies, call centre companies and cleaning companies. This is because these industries are very labour intensive and staff costs are their biggest cost. In other developed economies,

such as Italy however, its importance as a primary source of working capital appears to be much more widespread Klapper (2004).

In most parts of the world, factoring is seen as a better form of lending. It tends to be a powerful financing tool in financing high-risk informationally opaque borrowers Klapper (2006). It is based on the accounts receivable that will be paid by high-quality buyers. Just like normal financing products, factoring provides working capital to SMEs, but the difference in the case of factoring is that it involves the outright purchasing of accounts receivable by a factor instead of collateralisation of a loan.

### **1.3 South African government's empowerment initiatives**

#### **1.3.1 Broad Based Black Economic Empowerment**

As part of the codes of good practice, the South African government, through the Department of Trade and Industry (DTI), came up with the BBBEE codes of 1997. These codes offer parastatals and blue-chip companies the choice to procure their goods and services from SMEs. However, the challenge with this is that these SMEs cannot fulfil the contracts awarded by the big buyers due to lack of funds or working capital.

Under the BBBEE codes, big buyers earn BEE points by buying from SMEs. In particular the government through the BBBEE codes allows big buyers to earn preferential procurement points by buying from SMEs. Over and above this they earn enterprise development points by paying invoices from SMEs within 15

days from invoice date. Against this backdrop, big buyers can participate in the lending to allow their vendors to be paid within 48 hours as part of reverse factoring. This is an incentive for big buyers, as they will be helping their own vendors with liquidity while they themselves earn much-needed BBBEE points.

#### **1.4 Problem Statement**

Small and medium sized enterprises need working capital. The current forms of financing require SMEs to pledge collateral as security. This requirement by financiers is to mitigate the risks associated with financing SMEs. A financing technology called reverse factoring without recourse has been successful in other emerging economies. This research will then seek to uncover the risks and rewards of providing this funding technology in South Africa

#### **1.5 Research objectives**

The fundamental question that this research seeks to answer is: What are the risks and rewards of offering “reverse factoring” to SMEs in South Africa? The risks and rewards of this kind of factoring technology will help to uncover whether it is worth introducing this financing tool to SMEs.

## Chapter 2: Literature review

### 2.1 Factoring – a definition

In traditional factoring, the underlying assets are the seller's accounts receivable, which are purchased by the factor at a discount. The remaining balance is paid to the seller when the receivables are paid to the factor, less interest and service fees. For example, most factors offer sellers financing up to 75% of the value of an account receivable and pay the remaining 25% – less interest and service fees – when payment is received from the buyer Klapper (2005, 2006).

In general, financing is linked on a formula basis to the value of the underlying assets, e.g. the amount of available financing is continuously updated to equal a percentage of the available receivables. An important feature of the factoring relationship is that a factor will typically advance less than 100% of the face value of the receivable even though it takes ownership of the entire receivable. The difference between this advance amount and the invoice amount (adjusted for any netting effects such as sales rebates) creates a reserve held by the factor. This reserve will be used to cover any deficiencies in the payment of the related invoice. Thus, even in non-recourse factoring (see 2.1.1 below) there is risk sharing between the factor and the client in the form of this reserve account Klapper (2005).

#### 2.1.1 Recourse vs. non-recourse factoring

Factoring can be done either on a “recourse” or “non-recourse” basis against the factor’s client (the “seller”). In non-recourse factoring, the lender not only assumes title to the accounts, but also assumes most of the default risk because the factor does not have recourse against the supplier if the accounts default. Under recourse factoring, on the other hand, the factor has a claim (i.e. recourse) against its client (the “borrower”) for any account payment deficiency. Therefore, losses occur only if the underlying accounts default and the borrower cannot make up the deficiency. In developed countries, it appears that factoring is more frequently done on a non-recourse basis. In Italy, for example, 69% of all factoring is done on a non-recourse basis Muschella (2003).

Similarly, a study of publicly traded firms in the United States found that 73% of firms factored their receivables on a non-recourse basis, but that both sellers with poorer quality receivables and sellers who, themselves, were higher quality were more likely to factor on a recourse basis Sopranzetti (1997). Since in emerging markets it is often problematic to assess the default risk of the underlying accounts, most factoring is done on a recourse basis.

### **2.1.2 Notification vs. non-notification factoring**

In addition, factoring can be done on either a notification or non-notification basis. Notification means that the buyers are notified that their accounts (i.e., their payables) have been sold to a factor. Under notification factoring, the buyers typically furnish the factor with delivery receipts, an assignment of the accounts and duplicate invoices prepared in a form that indicates clearly to the supplier that its account has been purchased by the factor Klapper (2004).



## 2.2 Advantages of using factors

The credit services involve assessing the creditworthiness of the borrower's customers whose accounts the factor will purchase. Factors typically base this assessment on a combination of their own proprietary data and publicly available data on account payment performance.

The collection services involve the activities associated with collecting delinquent accounts and minimising the losses associated with these accounts. This includes notifying a buyer that an account is delinquent (i.e. past due) and pursuing collection through the judicial system. Factoring allows SMEs to effectively outsource their credit and collection functions to their factor. This represents another important distinction between factors and traditional commercial lenders. These credit and collection services are often especially important for receivables from buyers located overseas Klapper (2005, 2006).

Factoring offers many other advantages – more than simply finance – to firms. Through matching finance with professional credit management services, and in some cases credit protection, factoring stands out as unique from these other competing sources of external finance.

Other advantages of factoring include:

- the possibility of obtaining financing on a very short term, without taking the company's debt level into consideration and without supplementary

guarantees. Thus, factoring companies give the funds to the SME on the day the invoice is handed, after signing the factoring agreement;

- the improvement of cash-flow, because the period of getting the cash is shorter than waiting for a credit;
- unlike banking credits, the funds obtained by factoring do not have to be used for a specific destination, they could be invested in any function of the client's immediate needs;
- the number of documents that must be filled out in by the adherent and presented to the factoring company is much smaller than in the case of applying for a regular bank credit;
- after analysing the documents, the factor may only refuse the services if a shareholder relation exists between adherent and debtor or in the case of conditioning the payment on sales;
- through factoring, companies benefit from the fact that they can concentrate on the development of the business by expanding their production and sales, while the factor deals with tracing the settlement of the account and the records of the debtors;
- protection against the risk of invoices not being paid, which is taken over by the factor entirely; factoring can be a powerful tool in providing financing to high-risk, informational opaque sellers;
- protection against the exchange rate fluctuation risk, in the case of international factoring;
- factoring companies can provide important export services to local SMEs, such as credit protection, working capital financing and collection services. These pooled services might also allow local exporters to enter

new, riskier markets.

## **2.3 Reverse factoring**

Reverse factoring is the form of factoring that mitigates the risk of borrowers' information opacity in the business environment with weak information infrastructures when receivables from high quality buyers are factored.

### **2.3.1 Perceived risks of reverse factoring**

#### ***2.3.1.1 Lack of collateral***

Cressy and Olofsson (1997) found that smaller businesses have lower fixed to total asset ratios, higher current liabilities relative to total assets, and greater financial risk. Similar studies have also identified the information asymmetries associated with SME lending to explain why it is harder for SMEs to access debt financing. Along these lines, (Berger and Udell 1995) found that smaller and younger firms are more likely to face higher costs (interest rate) of financing and be required to pledge collateral.

#### ***2.3.1.2 Lack of access to broadband***

On electronic finance, "A cornerstone to trade and compete internationally" (Cattani 2000) argues that a silent revolution that is taking all finance to electronics is underway and online reverse factoring is no different. Access to the internet is, therefore, crucial for SMEs in South Africa if they are to benefit from reverse factoring.

### **2.3.1.3 Risk of fraud**

Smaller firms may be particularly affected by fraud. One study found that the effect of financial, legal and corruption problems consistently constrained the growth of smaller firms more than larger firms in a cross-country analysis (Beck, Demirguc-Kunt and Maksimovic, 2004). In many emerging markets, the credit information bureau is incomplete (i.e. may not include small firms) or non-bank lenders, such as factors, are prohibited from joining. Second, fraud is a big problem in this industry – bogus receivables, non-existing customers, etc. – and a weak legal environment and non-electronic business registries and credit bureaus make it more difficult to identify these problems Klapper ( 2004).



**Table 3: Comparative business and legal environments**

**Table 2A. Comparative Business and Legal Environments**

	Strength of Acctg Standards	Information Infrastructure Public Credit Registry	Private Credit Bureau
Bulgaria	-	1	0
Czech Republic	-	1	1
Baltic States	-	-	-
Hungary	-	0	1
Poland	-	0	1
Romania	-	1	0
Slovakia	-	1	0
Slovenia	-	1	0
<b>EASTERN EUROPE</b>		<b>0.7</b>	<b>0.4</b>
Austria	54	1	1
Belgium	61	1	1
Cyprus	-	-	-
Denmark	62	0	1
Finland	77	0	1
France	69	1	0
Germany	62	1	1
Greece	55	0	1
Iceland	-	-	-
Ireland	-	0	1
Italy	62	1	1
Netherlands	64	0	1
Norway	74	0	1
Portugal	36	1	1
Spain	64	1	1
Sweden	83	0	1
Switzerland	68	0	1
Turkey	51	1	1
United Kingdom	78	0	1
<b>WESTERN EUROPE</b>	<b>63.8</b>	<b>0.5</b>	<b>0.9</b>
Argentina	45	1	1
Brazil	54	1	1
Canada	74	0	1
Chile	52	1	1
Colombia	-	0	1
Costa Rica	-	1	1
Cuba	-	-	-
El Salvador	-	1	1
Mexico	60	0	1
Panama	-	0	1
U.S.A.	-	0	1
<b>AMERICAS</b>	<b>57.0</b>	<b>0.5</b>	<b>1.0</b>
Israel	64	0	1
Morocco	-	1	0
Oman	-	0	0
Saudi Arabia	-	1	1
South Africa	70	0	1
Tunisia	-	1	0
<b>AFRICA &amp; MIDDLE EAST</b>	<b>67.0</b>	<b>0.5</b>	<b>0.5</b>
China	-	1	0
Hong Kong	69	0	1
Indonesia	-	1	0
India	57	0	1
Japan	65	0	1
Malaysia	76	1	1
Philippines	-	0	1
Singapore	78	0	1
South Korea	62	0	1
Sri Lanka	-	0	1
Taiwan	65	1	1
Thailand	64	0	1
<b>ASIA</b>	<b>67.0</b>	<b>0.3</b>	<b>0.8</b>
Australia	75	0	1
New Zealand	70	0	1
<b>AUSTRALASIA</b>	<b>72.5</b>	<b>0.0</b>	<b>1.0</b>
<b>TOTAL WORLD</b>	<b>64.2</b>	<b>0.5</b>	<b>0.8</b>

**2.3.1.4 Risk of wrong goods being delivered by the SME**

Klapper (2006) when researching the Nafin case outlines ways of how to

reconcile payments when wrong goods are delivered to the big buyer. In the Nafin case when wrong goods are delivered, the shortfall is reconciled using the following months receipts so that nafin gets paid the full amount from the big buyer even if there are disputes.

#### **2.3.1.5 Lack of a proper legal system**

A country's legal and judicial infrastructure significantly influences the context in which loan contracting is conducted. The legal infrastructure that affects business lending consists of the commercial laws that specify the property rights associated with a commercial transaction and enforcement of these laws. The latter determines the confidence of contracting parties in financial contracts. Collectively, these two features constitute the rule of law as it relates to the extension of credit (Berger and Udell, 2002) . Empirical studies have shown that firms in countries with greater financial development and stronger property rights have increased levels of investment funded by external finance, while firms in countries with weaker financial development and property rights are more likely to obtain potentially less efficient financing from development banks, the government or informal sources (Beck, Demirguc-Kunt and Maksimovic, 2004).

Under United States bankruptcy law, the judge is required to preserve the collateral claim of secured creditors and to give them “adequate protection” if the collateral or its proceeds are denied to the secured lender. That is, the bankruptcy judge is obligated to preserve the value of a secured lender's claim. Moreover, petitions by secured lenders for a waiver from the automatic stay are

often filed at the time of the bankruptcy petition and approved by the bankruptcy judge in the case of specific collateral classes, such as accounts receivable Udell (2004).

## **2.3.2 Perceived rewards of reverse factoring**

### ***2.3.2.1 Fulfilment of mandates***

State-owned institutions generally operate with government subsidies and often have mandates to supply additional credit to SMEs or entrepreneurs in general, or to those in specific industries, sectors, or regions. Although in principle, this might be expected to improve funding of creditworthy SMEs, it could have the opposite effect in practice because these institutions may be inefficient due to a lack of market discipline. Much of the funding given to SMEs may be to firms that are not creditworthy because of this inefficiency. The credit recipients may also not be creditworthy because the lending mandates do not necessarily require the funding to be applied to positive net present value projects, or do not expect the loans to be repaid at market rates. Also, some of the funds may be channelled for political purposes, rather than for economically creditworthy ends (see, Berger and Udell, 2005).

### ***2.3.2.2 Alleviation of poverty***

Recent cross-country studies found a strong association between the importance of SMEs and gross domestic product (GDP) per capita growth, but found that SMEs did not exert a causal impact on growth. Furthermore, the authors found no evidence that SMEs reduce poverty (Beck, Demriguc-Kunt

and Levine, 2003). This finding suggests that the impact of the SME sector on poverty alleviation might vary by country and region.

## **2.4 Decisions that influence SME managing directors to use factors**

As noted in the introduction, the decision to factor receivables is a credit management decision, which is made by the managing director of a going concern. Summers and Wilson (2000) state that in the United Kingdom, 80% of trades are done on a credit basis which means that there is a lot of liquidity tied up in the receivables. They also postulate that trade debtors are one of the main assets in company balance sheets and that the management of trade credit is an important facet of short-term financial management. Peterson and Rajan (1997) also report that for small firms, offering trade credit is an important means of attracting new and large customers. In the South African context, it is also the case that SMEs do business with big corporate companies on credit and this squeezes their liquidity.

Summers and Wilson (2000) list the following decisions to use factoring, namely: transaction costs; asset specificity; economies of scale; product characteristics and the value of goods as collateral; price discrimination finance and cash flow demands; distribution channels and the selling process; supply constraints; the factor's preferences; and the firm's industry sector. These decisions to factor also affect the South African market in a sense that local SMEs might decide to sell their receivables based partly on the above-mentioned criteria.



## **2.5 Electronic finance as a solution to cutting costs**

As mentioned above, when it comes to electronic finance, what Cattani (2000) calls the “cornerstone to trade and compete internationally”, he argues that a silent revolution that is taking all finance to electronics is underway and online reverse factoring is no different. He also mentions the fact that technology in finance helps to bring costs down. It has been found that a traditional bank to branch transaction costs no less than US\$1; using an ATM reduces the cost to US\$0.20; while an online transaction brings the cost down to US\$0.01 Cattani (2000). Based on the above, it looks like the buying and selling of invoices online would be beneficial to both SMEs and big buyers. With those cited benefits of online transactions, Cattani (2000) highlights the fact that these websites require state-of-the-art security and encryption technology.

## **2.6 Lack of credit information for SMEs in developing nations**

As an illustration in developing nations, some highly opaque SMEs in the transition countries of Eastern Europe that might not be able to obtain any type of direct loans from financial institutions may be able to obtain funding through the transactions factoring. In many cases, the factored receivables of these SMEs involve an obligor from a developed nation that can be evaluated. The financial institution that buys the receivables bases its lending decision primarily on the creditworthiness of the obligor, rather than the SME that gains access to the funds (e.g., Bakker, Klapper and Udell, 2004). To illustrate this, the ratio of

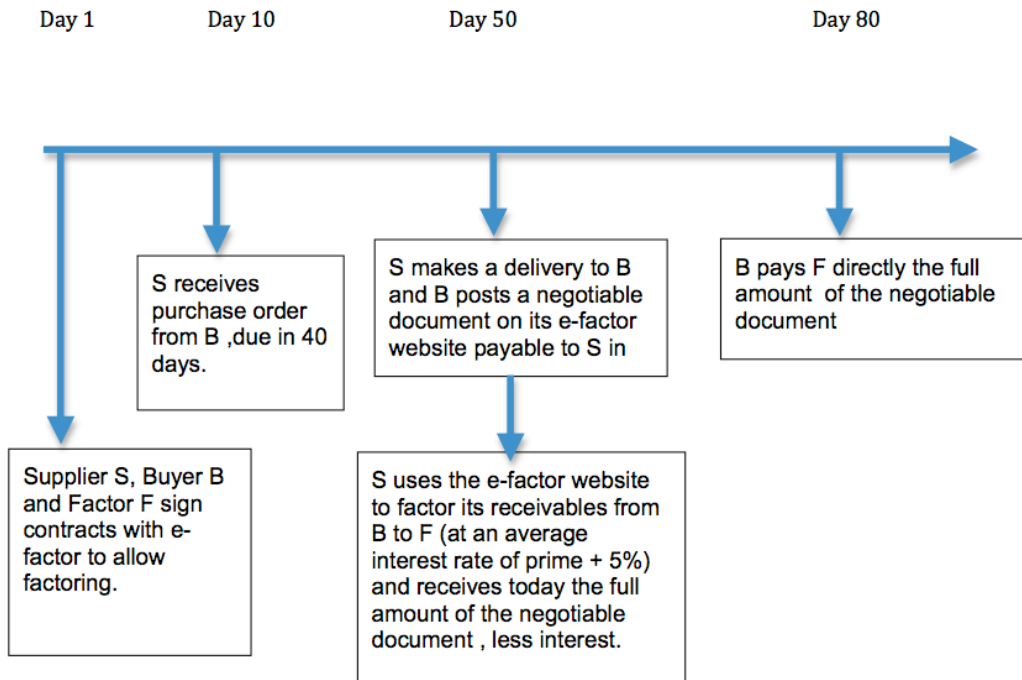
the volume of factoring to GDP in 2002 was 11.9% in Italy, but only 0.9% in Switzerland (Bakker, Klapper and Udell 2004).

A factor may enjoy several important advantages in offering credit and collection services. Firstly, it may reap significant economies of scale in both activities relative to its clients. Because the factor performs these services for many different clients, it can amortise the fixed costs associated with them. In addition, most small SMEs likely have little expertise in either area.

Secondly, factors generate proprietary databases on account payment performance. The largest and more experienced factors essentially become the equivalent of large credit information exchanges, offering an alternative to private commercial credit bureaus and public credit registries. They also enjoy the same economies of scale in information exchange that credit bureaus and public credit registries do (Kallberg and Udell, 2003).

The following factoring process was taken from (Klapper, 2003) and has been slightly modified by the author.

**Figure 3: The factoring agreement**



**Legend:**

S: SME, seller

B: Buyer, blue-chip company, parastatal, government department

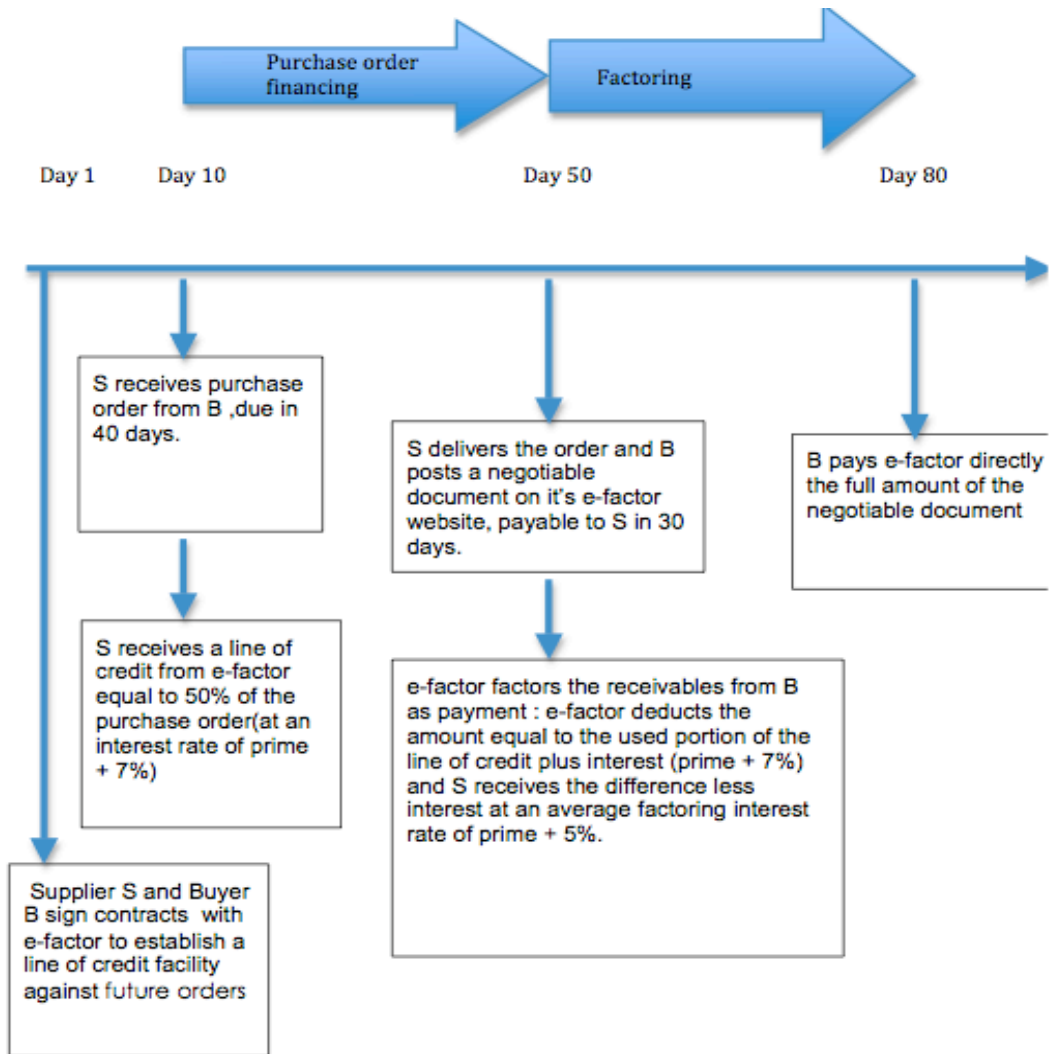
F: Factor, DFIs, banks, financiers

e-factor: The web-based company that does the operations of factoring, management of negotiable documents.

The following supply contract finance process was taken from (Klapper, 2003)

and was modified by the author.

**Figure 4: The contract financing agreement**



**Legend:**

S: SME, seller

B: Buyer, blue-chip company, parastatal, government department

F: Factor, DFIs, banks, financiers

e-factor: The web-based company that does the operations of factoring, management of negotiable documents.

**2.7 Reverse factoring in other countries**

**2.7.1 Reverse factoring in Mexico**

**2.7.1.1 The Nafin factoring programme in Mexico**

Ordinary factoring requires lenders to have timely and comprehensive credit

information and suppliers to have sophisticated technology and management information systems (MIS) . However, reverse factoring only requires complete credit information on one or more creditworthy firms which are the big buyers. These big buyers can be government institutions and blue-chip companies. There are potential advantages for all participants: For the factor, who benefits from low information costs and credit risk; for the (high-risk) seller, who benefits from access to short-term, working capital financing; and for the (creditworthy) buyer, who benefits from the ability to outsource its receivable management and negotiate better terms with its suppliers Klapper (2004).

South Africa is hailed as a country with a great banking system and a functional credit bureau system. This research will hopefully bring to light whether the successes that occurred in Mexico, can be replicated in South Africa.

A successful example of reverse factoring in a developing country is the case of the Nafin Development Bank in Mexico, which offers on-line factoring services to SME suppliers. The programme is called the “cadenas productivas”, or “productive chains” programme and works by creating “chains” between “big buyers” and small suppliers Klapper (2004). The big buyers are large, creditworthy firms that have a low credit risk. The suppliers are typically small, risky firms which generally cannot access any financing from the formal banking sector.

#### **2.7.1.2 Transfer of credit risk**

The Nafin programme allows these small suppliers to use their receivables from

big buyers in order to receive working capital financing, effectively transferring their credit risk to their high-quality customers to access more and cheaper financing.

### ***2.7.1.3 Reduction in labour costs***

The Nafin programme in Mexico is a special case. It operates on an electronic platform that provides on-line factoring services, which reduces costs and improves security. Over 98% of all services are provided electronically, which reduces time and labour costs. The electronic platform also allows all commercial banks to participate in the programme, which gives national reach, via the internet, to regional banks. Nafin also uses the internet and regional “contact centres” to market and provide services.

### ***2.7.1.4 Economies of scale offered by the use of technology***

Technology has allowed successful economies of scale – Nafin grew from a 2% market share of factoring in 2001 to 60% of the market in 2004 ,Klapper (2005, 2006). There are a number of additional characteristics that make the Nafin programme unique. For example, all factoring is done on a non-recourse basis, which lets small firms increase their cash holdings and improve their balance sheets.

### ***2.7.1.5 Involvement of private financiers like banks***

Also, Nafin has a “multi- bank” approach, which allows lenders to compete to factor suppliers’ receivables. In addition, Nafin pays for the costs associated with their electronic factoring platform and all legal work, such as document

transfers, preparing and signing documents, etc., so that banks charge only interest and not service fees. Nafin covers its own costs with the interest that lenders pay for Nafin's refinancing capital or service fees Klapper (2006).

#### **2.7.1.6 Importance of government buy-in**

In 1934, the Mexican government created Nafin as a state-owned development bank with the goal of providing commercial financing. Nafin has 32 state-branch offices throughout the country. When the new government was elected in 2000, Nafin was given new management and direction with the goal:

1. to use new technology to provide micro-enterprise and SME loans; and
2. to complement lending with greater training and technical assistance.

The factoring programme is integrated with the Mexican e-government model that aims to use the internet to provide quicker and cheaper government services. Nafin is primarily a second-tier development bank: About 90% of its lending is done through refinanced bank loans and about 10% is made directly to borrowers (primarily public projects). About 80% of the second-tier business is currently the factoring of receivables of commercial firms.

In December 2000, Nafin reported assets of U\$23.9 billion and a deficit of U\$429 million. In December 2003, Nafin reported assets of U\$26.75 billion and a surplus of U\$13.23 million.

Factoring has helped contribute to the turn-around in Nafin's balance sheet (Klapper, 2004).

**Figure 5: The role of factoring: A case of reverse factoring in Mexico**

**Box 2. The Role of Reverse Factoring**

In some developing countries with weak information infrastructure, factors use a different approach to offer their services. In ordinary factoring the factor (lender) generally purchases many accounts receivable from a limited number of sellers. But this approach requires the factor to collect credit information and calculate the credit risk for a large number of customers. In the alternative, known as reverse factoring, the lender pools and purchases receivables payable by only a few high-quality and/or international customers from many suppliers. Thus the lender only needs to collect credit information and calculate the credit risk for a few large, transparent, internationally accredited firms. Because the credit risk is lower, lenders in developing countries can absorb it and are better able to offer non-recourse factoring.

For example, Heller Financial and Wal-Mart have a reverse factoring arrangement in Mexico. Wal-Mart offers its Mexican suppliers the option of having their accounts automatically factored by Heller and receiving immediate payment of 80 percent of the sale. (The additional 20 percent, less interest and service charges, is paid upon Heller's receipt of Wal-Mart's payment.) Although the sellers may not have any relationship with Heller, they can receive short-term financing because they are borrowing on Wal-Mart's credit risk. By providing short-term financing, Wal-Mart is able to negotiate better terms with its suppliers and reduce its payment transaction costs (by paying one bill to Heller rather than to a large number of suppliers). Furthermore, Heller can raise less costly financing by securitizing its portfolio of Wal-Mart accounts receivable, which has a credit rating equal to that of Wal-Mart.

Source: Klapper and Vittas 2003

### 2.7.2 Reverse factoring in Italy

In other countries, factoring is the norm more than the exception. In countries like Italy, which is the second biggest factoring country after the United Kingdom (Fiordelisi, Marques-Ibanez and Molyneux, 2011), factoring is a complete package which includes client protection, credit management, accounts receivable bookkeeping and collection services. The SME sector in Italy is reaping the benefits of the above and South African SMEs could prosper if these services were available. With Government's initiatives in growing the SME sector a product like "reverse factoring" would prove very useful.

### 2.7.3 Reverse factoring in Cyprus



“On modern forms of financing”, (Lazaridis 2001) found that 83.3% of SMEs in Cyprus prefer non-recourse factoring which is normally associated with “reverse factoring”. This is because under reverse factoring, the big buyer pays the factor directly and usually the big buyer’s default risk is extremely small as most of them are multinationals. Under this arrangement, factors factor SME receivables with no recourse.

#### **2.7.4 Reverse factoring in Lithuania**

Lithuania is one of the countries which is on a drive to improve financing products that are tailored for SMEs. In the year 2000, the government even passed an act regarding accounts receivable financing in its civil code. This is a lesson for the South African context because if a government takes these contracts seriously, then financiers offer them to a larger pool of clients with the comfort that in the case of default the law can enforce the contract. Aleknaite (2009) states the importance of accounts receivable when she says: “Any company engaged in commercial activity can generate receivables”. An economy that allows its actors to use their accounts receivable to increase their turnover and penetrate new markets will, therefore, find additional resources for growth.

South Africa has a fairly functional legal system guided by one of the best constitutions in the world. A proper legal system is crucial in order for factoring to function smoothly. This is because factoring is contract based and requires all parties to honour their end of the deal. In 2000, Lithuania took a huge step by

adding accounts receivable financing as part of a recognised financial product legally.

### **2.7.5 Reverse factoring in Belgium**

Asselbergh (2002) researched how firms with restricted access to finance are financed in Belgium. The Belgian economy is unlike that of South Africa, but the challenge that SMEs face is almost identical regardless of the country, this is particularly true to finance constraints. Asselbergh (2002) discovered that factoring as a form of finance of last resort is not supported by research. Asselbergh (2002) says that factoring in Belgium is used by SMEs as an alternative if not their only source of finance.

## Chapter 3: Research propositions

The important themes that bring about the risks and the rewards of reverse factoring were derived from the literature survey. The themes that appeared mostly for risks were: security (collateral); fraud; legal system; access to the actual factoring technology; access to broadband for online reverse factoring; SME growth and development; and wrong goods/services; whereas the themes for rewards were: access to liquidity; economic activity; delivery on time; mandates; and employment creation. These themes were used to formulate the research objectives and draw up the questionnaire.

### 3.1 Formulating the research objectives

#### 3.1.1 Risks

1. A lack of SME **collateral** is a major risk for factors: Klapper (2005)
  - (a) A lack of collateral by SMEs is a risk to the financier because they have no recourse apart from payment from the big buyer.
  - (b) Without collateral, the financier can lose all funds transferred to the SME in non-recourse factoring.
2. Online reverse factoring requires good **broadband** connectivity: Klapper (2005)
  - (a) A lack of internet connections to other SMEs will impede online reverse factoring transactions.
  - (b) A lack of funds to connect to the internet may stifle online reverse factoring.

3. Under reverse factoring, **fraud** is a huge risk: (Beck, Demirguc-Kunt, and Maksimovic 2003) , Klapper (2004, 2005, 2006),
- (a) Reverse factoring is prone to fraudulent invoices.
  - (b) SMEs and key employees in the payments department can collude to send fraudulent invoices.
  - (c) Extremely astute factors can intercept the big buyers' payments system and put in wrong invoices.
  - (d) Payments department personnel at big buyers can insert fraudulent invoices for themselves.
4. Under reverse factoring, **wrong products** could be sent to big buyer: Klapper (2005, 2006)
- (a) Reverse factoring causes a risk to the financier if the goods delivered are not what the big buyer asked for.
  - (b) Reverse factoring is prone to risks if a big buyer pays later than 30 days to the factor because of wrong goods being delivered.
  - (c) Reconciliation of payments and receipts on reverse factoring may be difficult due to the wrong goods being delivered.
5. A **proper legal system** is crucial to reverse factoring: (Beck, Demirguc-Kunt, and Maksimovic 2004). Glaessner, Kellermann, and McNevin (2002), Claessens, Glaessner and Klingbiel (2001).
- (a) Without a proper legal system reverse factoring is risky for financiers/factors.
  - (b) Online reverse factoring will only work in a legal system that acknowledges electronic agreements.
  - (c) South Africa has an efficient enough legal system to deal with reverse factoring transactions.

### 3.1.2 Rewards

1. Reverse factoring improves **liquidity** for SMEs: Klapper (2005), Klapper, L. F. and Vittas, D. (2003)
  - (a) Reverse factoring will provide liquidity to SMEs.
  - (b) Liquidity will allow SMEs to tender for more contracts.
  - (c) Through reverse factoring SMEs will get payments within 48 hours instead of 60, 90 days.
  - (d) Reverse factoring is the best solution for paying SMEs quicker because it uses the default risk of the blue-chip company instead of the credit risk of the SME.
2. Reverse factoring improves **economic activity** amongst SMEs: Beck, Demirguc-Kunt, and Maksimovic (2003)
  - (a) Reverse factoring will boost economic activity amongst SMEs.
  - (b) Reverse factoring will allow more economic activity between blue-chip companies and SMEs.
  - (c) Economic activity is key to alleviating poverty.
3. Reverse factoring helps SMEs **deliver** goods and services on time: Klapper (2005), Klapper, L. F. and Vittas, D. (2003)
  - (a) Through reverse factoring SMEs will be able to deliver goods/services on time.
  - (b) SMEs could not deliver goods on time partly because of lack of funding.
4. Reverse factoring helps financiers to fulfil their SME **mandates**: BBBEE Codes of good practice of (1997)

- (a) Reverse factoring will help Development Finance Institutions (DFIs) fulfil their mandate of financing SMEs.
  - (b) Reverse factoring will help DFIs fulfil their mandates from government which are outlined in the New Growth Plan, Industrial Policy Action Plan (IPAP) and Accelerated Shared Growth Initiative of South Africa (ASGISA).
5. By using reverse factoring, **unemployment** is alleviated by SMEs hiring more on the back of improved liquidity:
- (a) Reverse factoring will help to alleviate unemployment as SMEs will be able to employ more people on the back of their improved liquidity.
  - (b) Unemployment in South Africa is partly due to lack of entrepreneurship activity which comes out of lack of liquidity.

The research methodology for this study is explained in chapter 4

## **Chapter 4: Research methodology**

The research methodology covers the semi-structured interview design, sampling design process, questionnaire design and protocol, and concludes with data recording and the process of data analysis.

### **4.1 Semi-structured interview design**

The semi-structured interview design comprised an explanation and application of semi-structured interview for this research context, unit of analysis identification, definition of dependent and independent research variables and by taking into account the semi-structured interview quality considerations.

#### **4.1.1 Semi-structured interviews**

Part one of the research sought to find out how procurement managers and financial managers of DFIs view the risks and rewards of reverse factoring. The purpose of this research was to identify the risks and rewards of offering reverse factoring as a financing technology to SMEs. Semi-structured interviews were conducted which allowed the participants to speak freely about the risks and rewards of this funding technology, and also their understanding of the risks and rewards associated with reverse factoring. King's (1994) view is that interviews are appropriate when the researcher wants to see the topic from the perspective of the interviewee and to see how or why the interviewee comes to have this perspective.

The research was conducted on blue-chip companies and government departments that are supplied by SMEs. These two big buyers of goods and services were chosen because they are responsible for awarding tenders to SMEs and who find themselves not receiving their ordered goods on time due to the SMEs' lack of working capital.

#### **4.1.2 In-depth interviews**

A qualitative and quantitative research methodology was employed. In-depth interviews were conducted and covered two parts. Part One allowed the respondents to speak freely about their understanding of factoring and the risks and rewards attached to this financing technology. For Part Two, Likert-scale type questions were asked about the variables that were identified during the literature survey. In both cases, probing questions were asked to gain a deeper understanding of the respondents' views.

#### **4.1.3 Unit of analysis**

The unit of analysis for this research comprised heads of procurement and financial managers of blue-chip companies, government departments and chief investment officers of DFIs. The chief investment officers of all five DFIs in the Pretoria region were interviewed to ensure that they were all represented in the research. Of the total of 20 national government institutions in the Pretoria region, 10 were interviewed, which was a representative sample of the total population. The objective of the research was to study the risks and rewards of offering reverse factoring to SMEs that supply big buyers. By choosing these individuals (financial managers and heads of procurement) of DFIs and



government departments, an adequate response was obtained during the in-depth interviews.

Questionnaires were sent to at least 80 SMEs that supply blue-chip companies and government institutions (see appendix).

#### **4.1.4 Quality considerations**

Perry (2001) refers to the work of Yin (1994) and indicates that four tests of quality may be applied to in-depth interviews, i.e. construct validity, internal validity, external validity and reliability. Construct validity will be ensured due to the triangulation that will be applied during this research, i.e. “multiple perceptions of reality” (Perry, 2001, p. 319). External validity will be ensured by the confirmation or disconfirmation of preliminary theory. Internal validity will be ensured by searching for “causal tendencies or generative mechanisms that suggest a causal relationship “that exists in “limited contexts” (Perry, 2001, p. 320). Reliability was ensured by the “extent to which the research can be audited” . All documentation will be managed in a manner that will allow for an audit trail.

## **4.2 The sampling design process**

The sampling population and sampling frame were determined after which the sampling technique and sample size were finalised. Triangulation was done to enhance the reliability of the research.

#### **4.2.1 Target population and sampling frame**

The target population was defined as heads of procurement of government institutions and chief investment officers of DFIs. There are five DFIs and 20 national government departments in the Pretoria region.

The sampling frame was derived from the target population, which included chief investment officers and heads of procurement of government institutions that are supplied by SMEs. These individuals are involved in the day-to-day operations of the departments and they have the educational background and conceptual ability to grasp the factoring technology concepts of this research context.

#### **4.2.2 Sampling technique and sampling size**

During the research, non-probability sampling techniques (Zikmund, 2003, p. 380) were employed using quotas and convenience sampling. The quota was set to at least 10 in-depth interviews as De Ruyter and Scholl (1998) indicate that between 10 and 60 respondents are required for a qualitative research project with about 40 respondents required in a large project. A total of 13 in-depth interviews were conducted that includes two interviews for triangulation purposes. An additional initial in-depth interview was done to conduct pilot testing of the interview questionnaire and protocol. Respondents were selected from different strata of DFIs (five groups); these personnel were chosen on their availability and constituted a convenience sample within the defined group strata.

### **4.2.3 Triangulation**

Triangulation was done by conducting in-depth interviews with two respondents from the DFIs, namely the Financial Manager and the Fund Manager. These respondents have sufficient engagement with SMEs to have valid experience of the working capital challenges faced and team members, but are not engaged on a full time basis with the business unit to enable a more objective opinion on these challenges. Two respondents per government department were interviewed, namely the heads of procurement and the financial managers.

## **4.3 Questionnaire and protocol development**

Questionnaire and protocol development were done by designing the questionnaire, compiling the protocol, conducting the first pilot interview and adjusting the final interview questionnaire and, finally, by considering the expected response biases.

### **4.3.1 In-depth interview questionnaire design**

An in-depth interview questionnaire with three open-ended questions followed by 27 Likert-scale questions was designed. The open-ended questions probed the respondents on their understanding of “reverse factoring” as well as identifying the risks and rewards associated with reverse factoring for SMEs. The open-ended questions were aimed at achieving “story telling”, i.e. “invites the interviewee to simply tell the story of their experience of whatever the research is about” (Perry, 2001, p. 311). The 27 propositions for this research were formatted into Likert-scale questions and presented to respondents for

rating. This methodology (open-ended questions and then Likert-scale questions) is in agreement with the case research method as suggested by Perry (2001) for conducting qualitative research.

#### ***4.3.1.1 Design of open-ended interview questions***

The three open-ended questions posed to respondents were:

1. Tell us what reverse factoring means to you?

(Possible-probing questions: How does a typical factoring arrangement work?)

2. What do you think are the risks associated with “reverse factoring”?
3. What do you think are the rewards associated with “reverse factoring”?

#### ***4.3.1.2 Design of Likert-scale questions***

Twenty-seven propositions were formulated based on the variables identified in the literature survey. A Likert-scale rating was allocated to each proposition in the questionnaire. Respondents had to rate each proposition ranging from 1 = disagree strongly to 5 = agree strongly. An explanation was given to the respondents for each variable in the propositions according to the definitions. The 27 Likert-scale questions were:

#### **Risks**

1. A lack of SME **collateral** is a major risk for factors:
  - (a) A lack of collateral by SMEs is a risk to the financier because they have no recourse apart from payment from the big buyer.
  - (b) Without collateral, the financier can lose all funds transferred to the SME in non-recourse factoring.

2. Online reverse factoring requires good **broadband** connectivity:
  - (a) A lack of internet connections to other SMEs will impede online reverse factoring transactions.
  - (b) A lack of funds to connect to the internet may stifle online reverse factoring.
  
3. Under reverse factoring, **fraud** is a huge risk:
  - (a) Reverse factoring is prone to fraudulent invoices.
  - (b) SMEs and key employees in the payments department can collude to send fraudulent invoices.
  - (c) Extremely astute factors can intercept the big buyers' payments system and put in wrong invoices.
  - (d) Payments department personnel at big buyers can insert fraudulent invoices for themselves.
  
4. Under reverse factoring, **wrong products** could be sent to big buyer:
  - (a) Reverse factoring causes a risk to the financier if the goods delivered are not what the big buyer asked for.
  - (b) Reverse factoring is prone to risks if a big buyer pays later than 30 days to the factor because of wrong goods being delivered.
  - (c) Reconciliation of payments and receipts on reverse factoring may be difficult due to the wrong goods being delivered.
  
5. A **proper legal system** is crucial to reverse factoring:
  - (a) Without a proper legal system reverse factoring is risky for financiers/factors.
  - (b) Online reverse factoring will only work in a legal system that acknowledges electronic agreements.

- (c) South Africa has an efficient enough legal system to deal with reverse factoring transactions.

## Rewards

1. Reverse factoring improves **liquidity** for SMEs:
  - (a) Reverse factoring will provide liquidity to SMEs.
  - (b) Liquidity will allow SMEs to tender for more contracts.
  - (c) Through reverse factoring SMEs will get payments within 48 hours instead of 60, 90 days.
  - (d) Reverse factoring is the best solution for paying SMEs quicker because it uses the default risk of the blue-chip company instead of the credit risk of the SME.
2. Reverse factoring improves **economic activity** amongst SMEs:
  - (a) Reverse factoring will boost economic activity amongst SMEs.
  - (b) Reverse factoring will allow more economic activity between blue-chip companies and SMEs.
  - (c) Economic activity is key to alleviating poverty.
3. Reverse factoring helps SMEs **deliver** goods and services on time:
  - (a) Through reverse factoring SMEs will be able to deliver goods/services on time.
  - (b) SMEs could not deliver goods on time partly because of lack of funding.
4. Reverse factoring helps financiers to fulfil their SME **mandates**:
  - (a) Reverse factoring will help DFIs fulfil their mandate of financing SMEs.
  - (b) Reverse factoring will help DFIs fulfil their mandates from government

which are outlined in the New Growth Plan, IPAP and ASGISA.

5. By using reverse factoring, **unemployment** is alleviated by SMEs hiring more on the back of improved liquidity:
  - (a) Reverse factoring will help to alleviate unemployment as SMEs will be able to employ more people on the back of their improved liquidity.
  - (b) Unemployment in South Africa is partly due to lack of entrepreneurship activity which comes out of lack of liquidity.

#### **4.3.2 Protocol development**

A protocol was compiled for this research to ensure that the in-depth interviews were conducted consistently, thereby increasing the reliability of the results gathered (Yin, 2003 , p. 67).

##### ***4.3.2.1 Invitation to respondents***

The following procedure was followed to invite the respondents:

- Select respondents based on the sampling technique;
- Contact respondents telephonically and inform them about the purpose of the research, confidentiality, duration and possible practical application of the results;
- Enquire if the respondent is willing to conduct the interview;
- Schedule an appointment with willing respondents.

##### ***4.3.2.2 Preparation for the in-depth interviews***

The following preparations were made for the in-depth interviews:

- Print the interview questionnaire;

- Ensure availability of a copy of the variable definitions as obtained from the literature survey.

#### ***4.3.2.3 In-depth interview: Introduction***

The following procedure was followed for the introduction:

- Welcome the respondent;
- Explain briefly (again) the objective and end-goal of the research;
- State the protocol on confidentiality;
- Explain the process that will be followed (first open-ended questions, then Likert-scale questions);
- State that the interview will be recorded on tape and results will be recorded on paper simultaneously;
- Enquire if the respondent has any questions and respond accordingly;
- Assign a number to the respondent and record the personal details of the respondent (sex, race, occupation, age and experience).

#### ***4.3.2.4 In-depth interview: Open-ended questions***

The following procedure was followed for the open-ended questions:

- Pose the first open-ended question to establish the respondent's understanding of the concept of reverse factoring;
- Pose follow-up questions to ensure clarity on the explanation given by the respondent on the first open-ended question;
- Record key concepts on a note pad;
- Pose the second open-ended question regarding the risks and rewards of reverse factoring;



- Pose follow-up questions to ensure clarity on the identification and explanation of variables given by the respondent on the second open-ended question;
- Record key concepts on a note pad.

#### ***4.3.2.5 In-depth interview: Likert-scale questions (statements)***

The following procedure was followed for the Likert-scale questions:

- Pose the 27 Likert-scale questions (statement), one by one, to the respondent and explain the variables in these questions;
- Request the respondent to rate the questions (statements) from 1 to 5;
- Note the rating on the printed questionnaire.

#### ***4.3.2.6 In-depth interview: Close out***

The following procedure was followed for the close out:

- Check to ensure that responses to all Likert-scale questions (statements) were filled in;
- Ask the respondent if he/she wishes to make any other comments;
- Thank the respondent for his/her time and contribution.

### **4.3.3 Pilot testing and questionnaire adjustment**

A single pilot test was done on a conveniently available candidate when the interviews commenced. The protocol was used as a guide during the interview.

### **4.3.4 Expected response bias errors**

Response bias errors in the form of social desirability, auspices and

acquiescence were to be expected (Zikmund, 2003, p. 177). Social desirability was to be expected as SME managing directors might have felt that if they said they needed reverse factoring it would mean that their businesses were in some financial trouble. Respondents were, therefore, less likely to reveal their full need for working capital assistance.

#### **4.4 Data recording and analysis processes**

##### **4.4.1 Data recording process**

Data were recorded during interviews using a tape-recording machine, note pad and filled out questionnaire forms. During the open-ended questions on reverse factoring and the variables as identified by the respondents, key concepts were recorded on the note pad. Recordings of some of the important concepts were read back to the respondent to ensure accurate recording of data.

##### **4.4.2 Data analysis process**

###### ***4.4.2.1 Data analysis process on in-depth interview open-ended questions***

Similar responses from respondents were categorised for all the interviews conducted. This included key concepts on the respondents' understanding of reverse factoring as well as the risks and the rewards of providing reverse factoring for SMEs. The data obtained from the pilot in-depth interview were not included in the data analysis, but were used only to pre-test the in-depth interview questionnaire and the protocol.

#### **4.4.2.2 Data analysis process on Likert-scale questions**

All questionnaires were coded onto a single coding sheet and the number of occurrences per Likert-scale category (1 – 5) was recorded. These frequencies were summarised to ensure that the total number of occurrences equalled the number of in-depth interview responses (13).

The researcher analysed the ordinal data (Likert-scale responses) using the frequencies and the mean values as measures of centre. The range (minimum and maximum values), and the standard deviation were calculated as measures of spread. This method is in accordance with “common descriptive measures” that could be used to analyse ordinal data as indicated by Page and Meyer (2003, p.149).

The ordinal data were then ranked from the highest mean value to the lowest mean value. For occurrences where two or more mean values were similar, the proposition with the lowest standard deviation was ranked higher than a proposition with a lower standard deviation. The standard deviation provided insight into the spread of responses from the target population with respect to the same proposition.

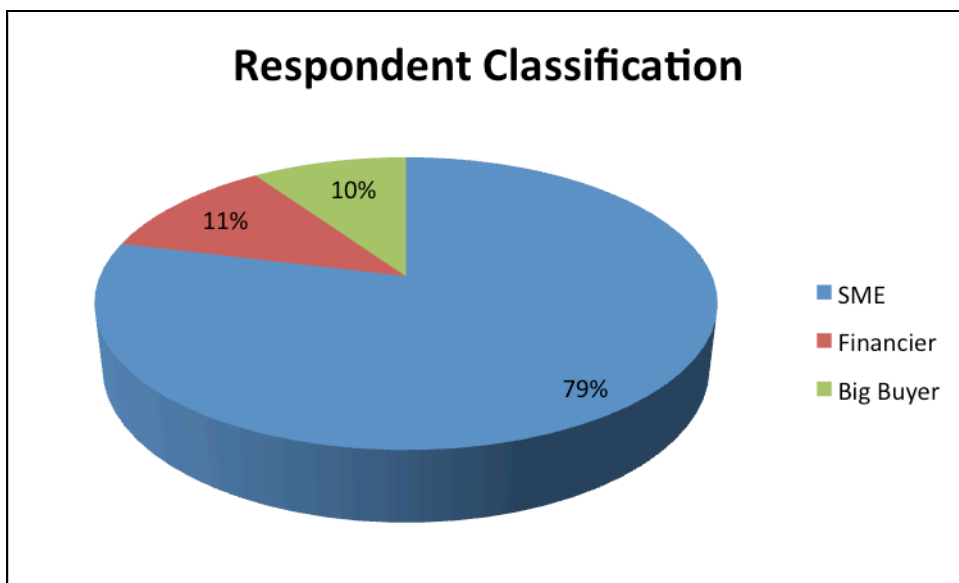
## Chapter 5: Results

### 5.1 Quantitative results

#### 5.1.1 Respondents' details

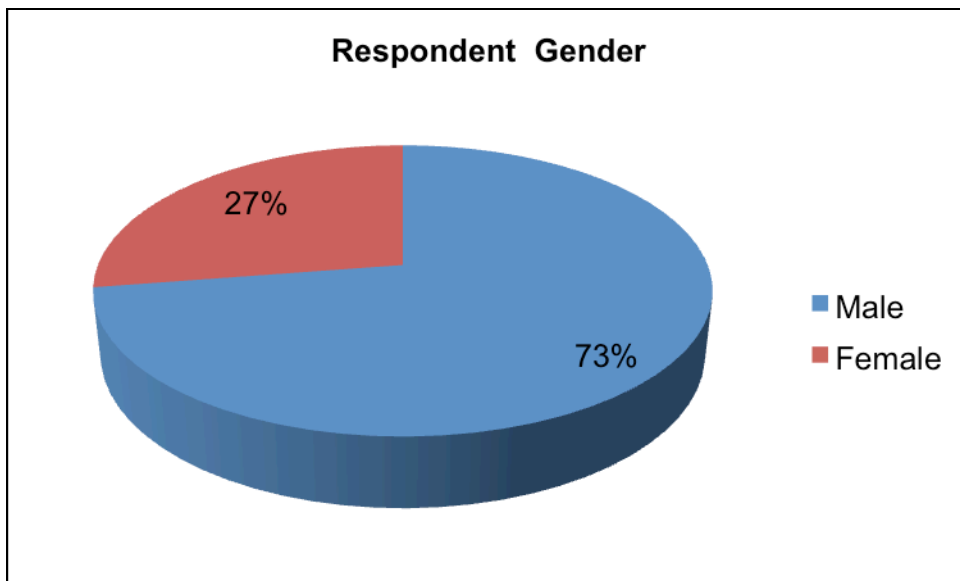
A total of 52 questionnaires of the 100 sent out were returned and the majority of the respondents were SMEs (79%), followed by financiers (11%), and lastly big buyers (10%) (see figure 6 below).

**Figure 6: Classification of respondents**



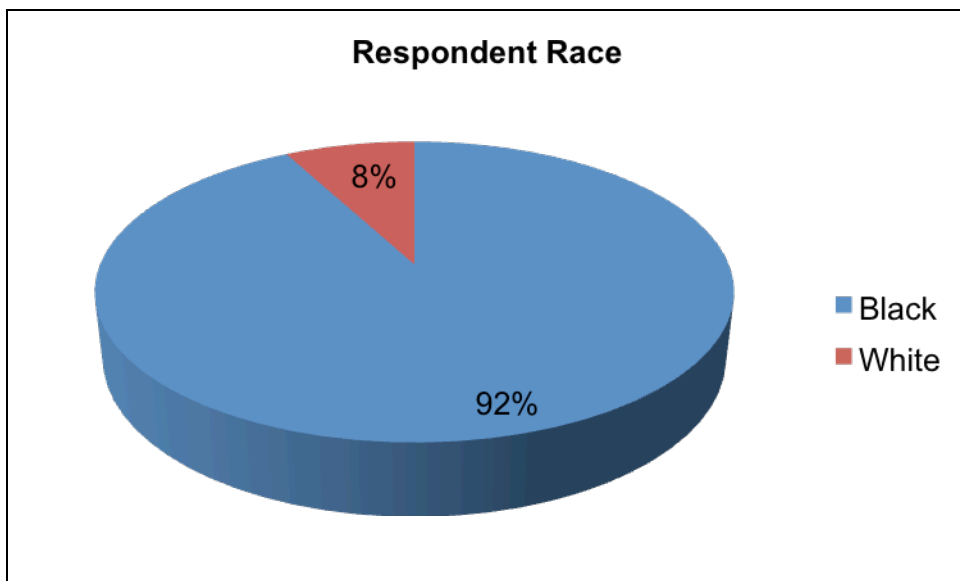
Most of the respondents were female (73%) and 27% were male (see figure 7 below).

**Figure 7: Gender of respondents**



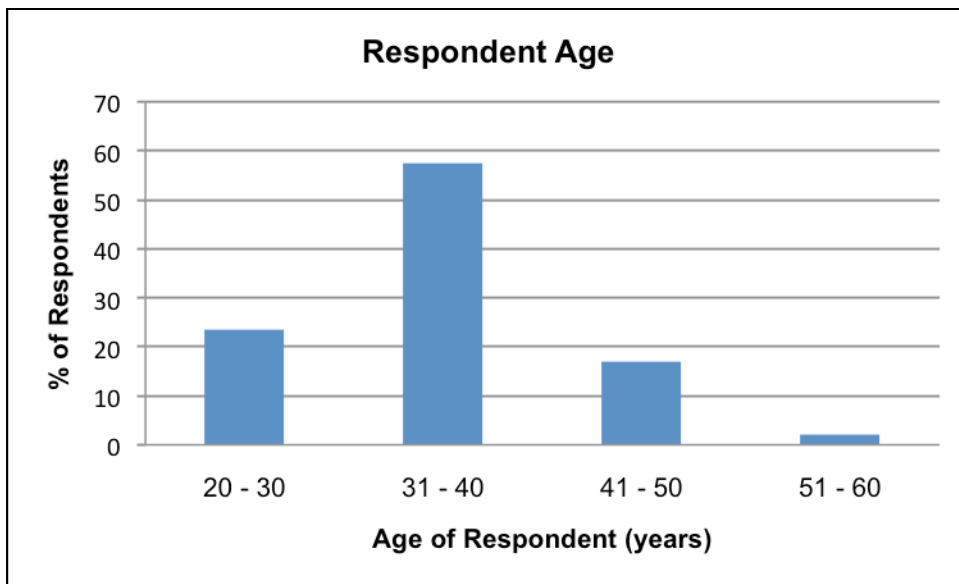
The sample constituted 92% blacks and 8% whites, there were no respondents of Indian origin and no coloureds (see figure 8 below).

**Figure 8: Race of respondents**



The majority of the respondents (57%) were aged between 31 – 40 years; followed by the 20 – 30 years age group (23%); then the 41 – 50 years age group (17%); and finally the 51 – 60 years age group with only 2% (see figure 9 below).

**Figure 9: Age of respondents**



A Cronbach's alpha test was done. This test is a measure of internal consistency to check the reliability of an ordinal scale. It is most commonly used when there are multiple Likert questions in a survey/questionnaire that form a scale and the researcher wishes to determine if the scale is reliable. In this research, all the questions had a Cronbach's alpha of 0.885, which indicated a very good level of internal consistency for the scale.

Of the 52 completed questionnaires, 48 were included in the calculation of the Cronbach's alpha and four respondents were excluded. This is because if there

is one answer missing from a response, then the whole questionnaire is excluded from the analysis.

**Table 4: Case processing summary**

		<b>N</b>	<b>%</b>
Cases	Valid	48	92.3
	Excluded (a)	4	7.7
	Total	52	100.0

List wise deletion based on all variables in the procedure.

**Table 5: Reliability statistics**

<b>Cronbach's Alpha</b>	<b>N</b>
0.885	27

### 5.1.2 Respondents' rating of risks

Using a five-point Likert scale, with five (5) as “strongly agree” and one (1) as “strongly disagree”, the respondents rated the 14 statements on the risks associated with reverse factoring. The results presented in table 6 indicate that the statement “Without collateral, the financier can lose all funds transferred to the SME in non-recourse factoring” was rated as the highest risk (4.33), followed by “SMEs and key employees in payments department can collude to send fraudulent invoices” (4.31). “South Africa has an efficient enough legal system to deal with reverse factoring transactions” (3.69) was rated as the least risk of reverse factoring.

**Table 6: Risks**

	<b>N</b>	<b>Mean</b>	<b>Standard deviation</b>
Q2 Without collateral, the financier can lose all funds transferred to the SME in non-recourse factoring.	52	4.33	0.76
Q6 SMEs and key employees in payments department can collude to send fraudulent invoices.	52	4.31	0.76
Q1 A lack of collateral by SMEs is a risk to the financier because they have no recourse apart from payment from the big buyer.	52	4.29	0.80
Q5 Reverse factoring is prone to fraudulent invoices.	51	4.27	0.67
Q10 Reverse factoring is prone to risks if a big buyer paying later than 30 days to the factor because of wrong goods being delivered.	52	4.27	0.63
Q3 A lack of internet connections to other SMEs will impede online reverse factoring transactions.	52	4.19	0.69
Q12 Without a proper legal system reverse factoring is risky for financiers/factors.	52	4.15	0.80
Q13 Online reverse factoring will only work in a legal system that acknowledges electronic agreements.	52	4.13	0.93
Q8 Payments personnel on big buyers can insert fraudulent invoices for themselves.	51	4.10	1.04
Q9 Reverse factoring causes a risk to the financier if the goods delivered are not what the big buyer asked for.	52	4.04	0.56
Q4 Lack of funds to connect to the internet may stifle online reverse factoring.	51	4.00	0.87
Q11 Reconciliation of payments and receipts on reverse factoring maybe be difficult due to wrong goods being delivered.	52	3.92	0.97
Q7 Extremely technology savvy hackers can intercept the big buyers' payments system and put in wrong invoices.	51	3.92	1.09
Q14 South Africa has an efficient enough legal system to deal with reverse factoring transactions.	52	3.69	1.21

A summated scale was constructed from the different propositions by finding the average of the ratings of all the variables that measure a particular risk. The resultant risks that were constructed were “Collateral”, “Fraud”, “Wrong goods/services”, and “Legal system”. The descriptive for these variables were calculated and the results revealed that “Collateral” was rated as having the highest risk (4.31), followed by “Fraud” (4.14) and the “Legal system” was viewed as having the lowest risk. The results are shown in table 7.

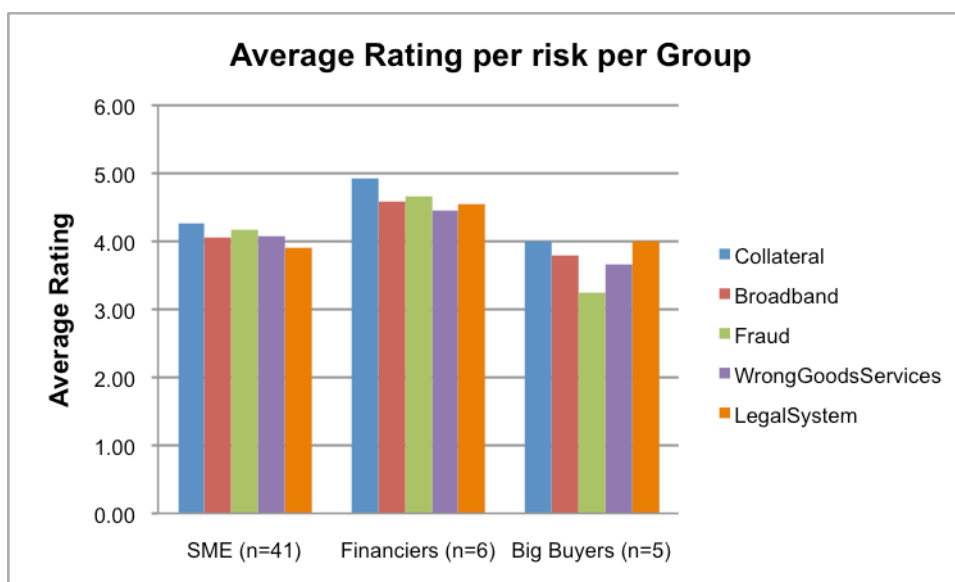


**Table 7: Summated risks**

	N	Minimum	Maximum	Mean	Standard deviation
Collateral	52	2	5	4.31	0.71
Fraud	52	2	5	4.14	0.68
Broadband	52	3	5	4.10	0.66
Wrong Goods/ Services	52	2.7	5	4.08	0.53
Legal System	52	1.7	5	3.99	0.76

The average summated risks were also calculated per type of respondents, that is, SMEs, big buyers and financiers. From the graphical illustration below (see figure 10) it can be noted that the financiers rated all the risks higher than the SMEs and big buyers. Within each group “Collateral” risk was rated the highest.

**Figure 10: Average rating per risk per group**



### 5.1.3 Respondents' rating of rewards

Using a five-point Likert scale, with five (5) as “strongly agree” and one (1) as “strongly disagree” the respondents rated the 13 statements on the rewards associated with reverse factoring. The results presented in table 8 indicate that “Economic activity is key to alleviating poverty” (4.79) was rated as the highest reward, followed by “Reverse factoring will provide liquidity to SMEs” (4.77). “SMEs could not deliver goods on time partly because of lack of funding” (4.12) was rated as the least reward of reverse factoring.

**Table 8: Rewards**

	<b>N</b>	<b>Mean</b>	<b>Standard deviation</b>
Q21 Economic activity is key to alleviating poverty.	52	4.79	0.41
Q15 Reverse factoring will provide liquidity to SMEs.	52	4.77	0.51
Q16 Liquidity will allow SMEs to tender for more contracts.	52	4.58	0.70
Q27 Unemployment in South Africa is partly due to lack of entrepreneurship activity which comes out of lack of liquidity.	52	4.56	0.78
Q20 Reverse factoring will allow more economic activity between blue-chip companies and SMEs.	52	4.54	0.64
Q26 Reverse factoring will help alleviate unemployment as SMEs will be able to employ more people on the back of their improved liquidity.	52	4.48	0.78
Q17 Through reverse factoring SMEs will get payments within 48 hours instead of 60, 90 days.	52	4.44	0.78
Q19 Reverse factoring will boost economic activity amongst SMEs.	52	4.44	0.78
Q18 Reverse factoring is the best solution for paying SMEs quicker because it uses the default risk of the blue-chip company instead of the credit risk of the SME.	52	4.37	0.89
Q25 Reverse factoring will help DFIs fulfil their mandates from the government which are outlined in the New Growth Plan, IPAP and ASGISA.	51	4.35	0.63
Q24 Reverse factoring will help DFIs fulfil their mandate of financing SMEs.	52	4.29	0.50
Q22 Through reverse factoring SMEs will be able to deliver goods/services on time.	52	4.13	0.66
Q23 SMEs could not deliver goods on time partly	52	4.12	0.78

because of lack of funding.			
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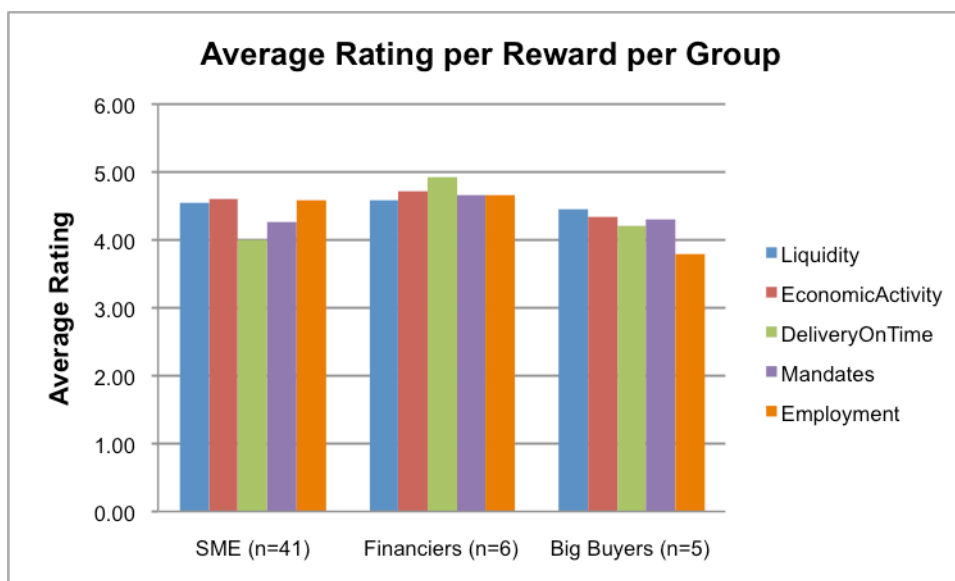
In the same manner as with the risks, a summated scale was constructed from the different reward propositions by finding the average of the ratings of all the variables that measure a particular reward. The resultant rewards that were constructed were “Economic activity”, “Liquidity”, “Employment”, “Mandates”, and “Delivery on time”. The descriptive variables were calculated and the results revealed that “Economic activity” was rated as being the highest reward (4.59), followed by “Liquidity” (4.54) and “Delivery on time” was viewed as having the least reward. Table 9 summarises the results.

**Table 9: Summated rewards**

	<b>N</b>	<b>Minimum</b>	<b>Maximum</b>	<b>Mean</b>	<b>Standard deviation</b>
Economic activity	52	3.3	5	4.59	0.46
Liquidity	52	3	5	4.54	0.52
Employment	52	2.5	5	4.52	0.69
Mandates	52	3	5	4.32	0.49
Delivery on time	52	2	5	4.13	0.66

The average summated rewards were also calculated per type of respondent, that is, SMEs, financiers and big buyers. The results are summarised in the bar graph below (see figure 11).

**Figure 11: Average rating per reward per group**



The average reward scores were not very different per group. One thing to note is that “Employment” was rated as one of the best rewards by SMEs, but the least by big buyers; while “Liquidity” was highly regarded by all three groups.

#### **5.1.4 T-tests between risks and rewards**

An average score per questionnaire for all the variables measuring risk was calculated and a summated risk variable was computed and in the same manner the summated reward variable was also computed. *T*-tests were then conducted to assess whether the overall rewards and the overall risks were rated the same or one outweighed the other. The null hypothesis was that the two have the same means, against the alternative hypothesis that the means

are different. The test was carried out at 5% significance level and the results are summarised below (see table 10):

**Table 10: Paired samples statistics**

		Mean	N	Standard Deviation
Pair 1	Risks	4.11	52	0.45
	Rewards	4.45	52	0.41

**Table 11: Paired samples correlations**

		N	Correlation	Sig.
Pair 1	Risks + Rewards	52	0.632	0.000

**Table 12: Paired samples test**

		Mean	Standard deviation	95% Confidence interval of the difference		t	df	Sig. (2-tailed)
				Upper	Lower			
Pair 1	Risks – Rewards	-0.34	0.37	-0.44	-0.23	-6.51	51	0.00

The significance value of the *t*-test in the paired samples test table was 0.00 to two significant figures. Thus, the null hypothesis that risk mean and the rewards mean rating scores are equal, was rejected. Since the mean for the rewards was greater than that of the risks, it can be concluded that the rewards outweighed the risks at 5% significance level.

There was a positive correlation of 0.632 between the overall rewards and the overall risks. This means that the rewards increased as the risks also increased. Thus, since the rewards outweighed the risks, it can be said that a unit increase in rewards was coupled with a 0.632 increase in risks and vice versa.

**Table 13: One way ANOVA for risks**

	N	Mean	Standard deviation	95% Confidence interval for mean	
				Lower bound	Upper bound
SME	41	4.09	0.44	3.95	4.23
Financiers	6	4.62	0.12	4.50	4.74
Big buyers	5	3.69	0.20	3.43	3.94
Total	52	4.11	0.45	3.99	4.24

The standard deviation showed that the most variation in the ratings for risks was recorded in the SME group and the least was recorded within the financiers group. The highest risk was recorded for the financiers, but on the other hand, the big buyers thought that there was a lower risk as compared to the other two groups.

**Table 14: ANOVA for risks**

	Sum of squares	df	Mean square	F	Sig.
Between groups	2.459	2	1.229	7.442	0.002
Within groups	8.095	49	0.165		
Total	10.554	51			

The significance value of the F-test in the ANOVA table was 0.002. Thus, the hypothesis that average mean risk rating scores are equal across three groups was rejected.

The means plots for the groups were conducted and these help to show the structure for the differences in the means of the various groups. Financiers felt most strongly that there was high risk, followed by the SMEs and then the

government. The F-statistics establish whether or not there is a difference between groups means, and the means plots suggest where the difference may lie.

**Figure 12: Means plot**

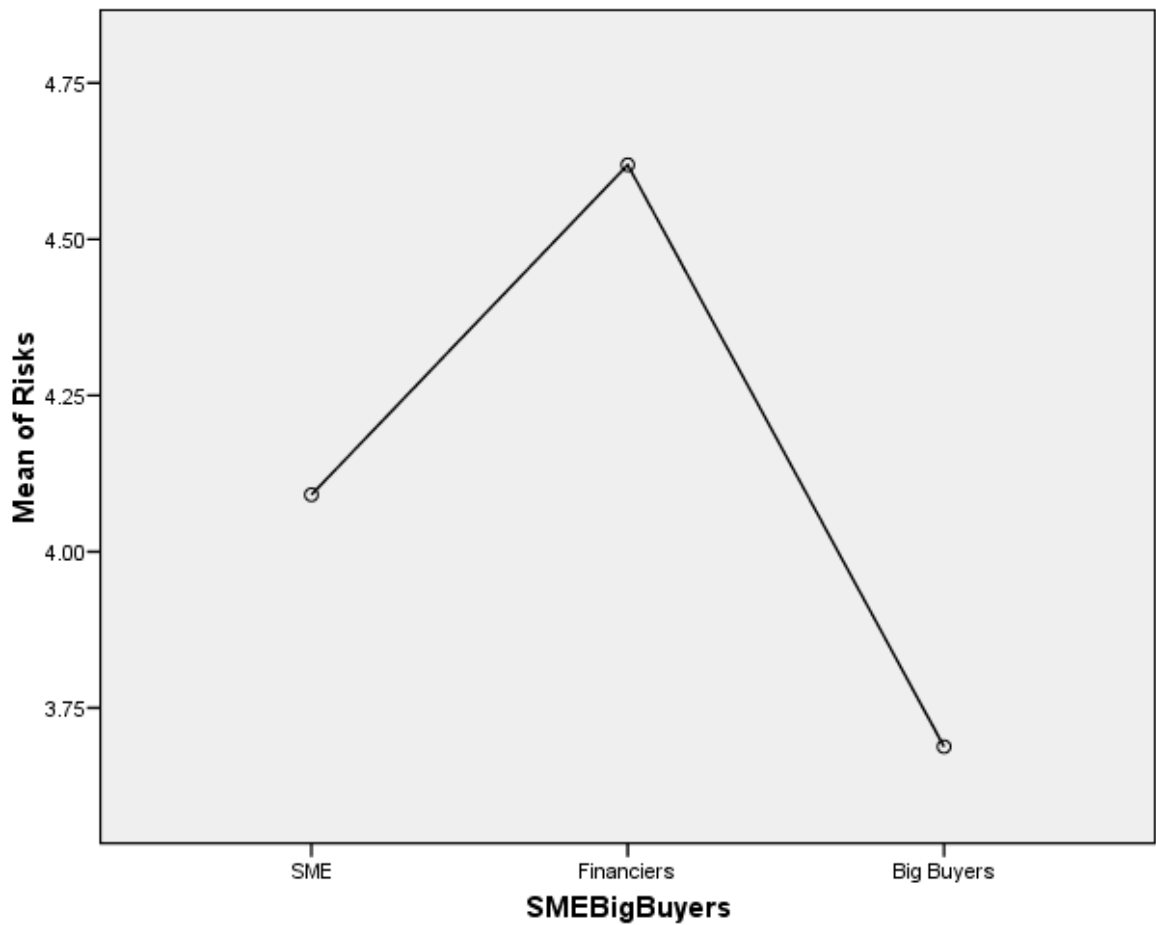


Table 15 below shows how the groups differed and the structure of the differences. The tests were done using the Tamhane post hoc tests which are conservative pair wise comparisons based on a t-test.

**Table 15: Post-hoc tests multiple comparisons**

(I) SME/Financier/Big buyer	(J) SME/Financier/Big buyer	Mean difference (I-J)	Sig.	95% Confidence interval	
				Upper Bound	Lower Bound
SME	Financier	-0.53	0.00	-0.74	-0.32
	Big buyer	0.40	0.02	0.07	0.73
Financier	SME	0.53	0.00	0.32	0.74
	Big buyer	0.93	0.00	0.60	1.27
Big buyer	SME	-0.40	0.02	-0.73	-0.07
	Financier	-0.93	0.00	-1.27	-0.60

Dependent Variable: Risks, Tamhane

The SME group thought that there was a lower risk as compared to the financiers and the difference was significant, as indicated by a significance value of 0.00 which is less than 0.05. On the other hand, the big buyers' score was significantly lower than the SMEs' risk score.

**Table 16: One way ANOVA for rewards**

	N	Mean	Standard deviation	95% Confidence interval for mean	
				Lower bound	Upper bound
SME	41	4.44	0.44	4.30	4.58
Financiers	6	4.69	0.10	4.59	4.79
Big buyers	5	4.26	0.31	3.88	4.65
Total	52	4.45	0.41	4.34	4.57

Like with the risks, the standard deviation showed that the most variation in the ratings for rewards was recorded in the SME group and the least was recorded within the financiers group. The highest rewards' rating was recorded for the financiers, followed by the SMEs and then the big buyers.



**Table 17: ANOVA for rewards**

	<b>Sum of squares</b>	<b>df</b>	<b>Mean square</b>	<b>F</b>	<b>Sig.</b>
Between groups	0.535	2	0.268	1.611	0.210
Within groups	8.140	49	0.166		
Total	8.675	51			

The significance value of the F-test in the ANOVA table was 0.210. Thus, the null hypothesis that average mean risk rating scores are equal across the three groups, was not rejected. Since the null hypothesis was not rejected, it can safely be concluded that at 5% significance level there was no difference in mean rewards ratings per group. From the earlier T-test it was noted that the rewards outweighed the risks and thus, combining the two conclusions, it can safely be concluded that all three groups rated the rewards highly.

## **5.2 Qualitative results**

### **5.2.1 Risks**

#### **5.2.1.1 Collateral**

From the interviews conducted with the procurement and finance personnel of government institutions it appeared that as much as they were not involved in lending to suppliers, they saw that the non-recourse element of reverse factoring might pose a threat to financiers. The government personnel cited the fact that because of risk mitigation, DFIs look for collateral as security.

#### **5.2.1.2 Access to broadband**

None of the respondents mentioned the issue of lack of broadband as a risk to

reverse factoring. This might be because they did not touch on online reverse factoring but only considered manual reverse factoring.

#### **5.2.1.3 Risk of fraud**

Fraud was the biggest concern amongst government personnel. They mentioned cases whereby payment personnel and suppliers had colluded to pay invoices when there was no job done. They saw reverse factoring as prone to this practice because of the 48 hour payment terms that are promised. This short time frame left financiers susceptible to opportunists who might insert fraudulent invoices.

#### **5.2.1.4 Risk of wrong goods being delivered by the SME**

The head of procurement in one of the government big buyers had an issue with how to treat the delivery of wrong goods. It also came out that sometimes goods are sold with guarantees and the question was: at the time the cessions were signed who was liable in the case of goods being returned. They also cited the fact that once forward payment was conducted under the reverse factoring arrangements, their departments were not to be held liable in case of disputes. An example was made by one procurement manager about their arrangement with a travel agent and car rental company on their travel contract. He cited that there were always disputes about the number of kilometres.

#### **5.2.1.5 Risk of an improper legal system**

During the interviews, the risk of an improper legal system came up mostly from government big buyers. This was particularly because of the Public Finance

Management Act (PFMA), which does not allow government departments to pay third parties. In the case of reverse factoring, the financier would be the third party. The supplier would have to cede its receivables to the financier in order to avoid double payment. However, the supplier could go behind the financier's back to change the terms of the cession. In the case of disputes the SME would be protected by the PFMA even though it had illegally changed the terms of the cession. The Debtors Collections Act agrees with reverse factoring transactions, while the PFMA does not allow payment to third parties.

#### **5.2.1.6 Costs**

Procurement managers were worried about incurring costs when SMEs price in the factoring fee on their tenders. The managers were also concerned that because tendering works on the lowest price, it is difficult for SMEs to collude by pricing higher for fear of losing the tender. Procurement managers were also worried about mistakes being made on the invoices themselves.

#### **5.2.1.7 No offset-reconciliation**

Government departments do not allow offsets. so in the case of an under or over payment, these discrepancies cannot be recovered in the following month. This is worse with services as opposed to products.

#### **5.2.1.8 Guarantees**

When a contract is awarded to an SME, the quantities are not guaranteed. This means that an SME can win a contract to finance 1 million units for a year, but only 800 000 might be ordered by the department.

#### **5.2.1.9 Loss of invoices**

One of the procurement heads saw no risks if all the systems work well. Loss of invoices was also seen as a risk for the financiers once they had forward paid their suppliers.

#### **5.2.1.10 Auditing**

The auditor general requires original invoices so the risk that surfaced concerned who gets copies and who gets the originals. If the factor agreed to take the copies, then there was a risk of getting duplicate copies.

### **5.2.2 Rewards**

#### **5.2.2.1 Provision of liquidity**

Most of the big buyers strive to pay their suppliers within 30 days of the statement or 30 days after invoice date. The theme that came out was that a working capital product like reverse factoring will surely help suppliers pay the SMEs. In particular government big buyers try as much as they can to pay their suppliers within 30 days, but due to their systems constraints they cannot do so effectively. From the interviews conducted these big buyer personnel pointed out that suppliers sometimes camped outside their offices just to get their payments processed. The interviews revealed that government big buyers were the main culprits in paying their suppliers late, whereas their blue-chip counterparts were better at paying their suppliers. In the words of one of the procurement managers, “cash flow is what it’s about“.

Another issue that arose from the interviews was that liquidity is a reward for the big buyers because they can then add more days to pay their suppliers' invoices. In another interview, one of the big buyers cited the suppliers' lack of passion for business. It was noted that even if they can provide reverse factoring and hence liquidity, other suppliers were just not cut out for the business.

#### ***5.2.2.2 Enhancement of economic activity***

Economic activity was also seen as a reward for SMEs as they can order more goods or tender for more contracts. In line with the liquidity reward, economic activity was seen as being constrained by late payments by big buyers.

#### ***5.2.2.3 Improvement of delivery***

SMEs have been delivering their goods later than required because they lacked funding due to the deferred payment terms offered by big buyers. This was more evident from suppliers of government institutions.

#### ***5.2.2.4 Fulfilment of mandates***

From the interviews conducted with participants who work for financiers they agreed that in terms of the government initiatives of Operation Batale (An initiative by the department of Public Works to pay their vendors within 15 days), BBBEE series 6 codes of good practice and the New Growth Plan, suppliers needed to be paid earlier.

#### **5.2.2.5 Alleviation of poverty**

One of the personnel from the big buyers pointed out that if the government wants to alleviate poverty, create employment and improve entrepreneurship, it must look at products like reverse factoring which provide early payments for SMEs.

#### **5.2.2.6 Government pressure easing**

As stated in the previous sections, the South African government has made it law that SMEs have to be paid within at least 30 days of the invoice date. The government heads of procurement and finance stated that reverse factoring would surely ease the pressure from the government regulators.

#### **5.2.2.7 Other SMEs have stopped dealing with the government**

Most SMEs have stopped dealing with government departments that either pay very late or never. The government personnel interviewed highlighted that this scenario was more prevalent in cases where the SMEs have many contracts with different departments. These SMEs then cherry-pick the departments that they deal with. This means that government departments end up with SMEs that are low skilled and have a bad record of delivery.

#### **5.2.2.8 Growth of businesses**

SME growth was not listed as one of the rewards propositions but it came out in most of the interviews. The key performance indicator of the heads of procurement was enterprise development. All five of them agreed that reverse factoring would help with SME growth.

#### **5.2.2.9 *Courage and confidence***

Other soft rewards came up in the interview process. One head of procurement said most SMEs lacked the courage and the confidence to supply government departments with goods. He agreed with the fact that reverse factoring or a standing short-term financing window would help alleviate this lack of courage and confidence.

#### **5.2.2.10 *Elimination of biases***

When vetting SMEs, government departments look at companies' cash flows from six monthly bank statements. With reverse factoring, anyone who has the capability to supply can do so knowing very well that they will receive their payments within 48 hours of invoicing.

## **Chapter 6: Discussion of results**

The results are discussed by first taking into account the research methodology with respect to the sampling frame and the expected errors. A discussion will then follow of the general understanding respondents had of the risks and rewards associated with reverse factoring, as it was found that only a few respondents provided meaningful responses to this question during the semi-structured interviews. The results are then discussed by considering each research proposition and the recorded responses to the related propositions.

### **6.1 Research methodology – Sampling frame and expected errors**

The demographics show that the respondents were predominantly black females of whom more than half were aged between 31 – 40 years. The respondents were mostly managing directors of SMEs. The results of this research are, thus, biased towards the opinion of black females who are managing directors of SMEs. It should also be noted that errors in the data may be expected in the form of social desirability, auspices and acquiescence as discussed during the research methodology in chapter 4. These errors are caused partly by the managing directors being uncomfortable about disclosing their working capital needs.

### **6.2 Respondents' understanding of reverse factoring**

Respondents from the financiers group showed an in-depth understanding of



reverse factoring. A few respondents from the big buyers group showed an understanding of the product. Most of the respondents understood what working capital is, but struggled with the term reverse factoring. Only after linking working capital financing and reverse factoring were the respondents comfortable with contributing to the research. Respondents from the SME group also struggled with the term reverse factoring but were comfortable with the term “selling of Invoices for immediate payments”. Only after this was explained to them were they confident about filling in the questionnaire.

### **6.3 Respondents’ understanding of the risks associated with reverse factoring**

#### **6.3.1 Risks associated with lack of collateral**

Respondents from the financiers group saw this as a huge risk to them. This is because reverse factoring is mostly done under non-recourse conditions. Usually collateral is not taken as security under this financing product. This means that if for any reason the big buyer goes under; the financiers will have to take the loss. Respondents from the big buyers group did not see this as a risk to themselves, but rather as a risk to the financiers. This means that reverse factoring has to involve a credit-worthy big buyer whose risk of default is so low that collateral is not needed by the financier under reverse factoring.

#### **6.3.2 Risks associated with lack of access to broadband**

Lack of access to the internet (proposition 3) was seen as a big risk to providing

online reverse factoring to SMEs in South Africa. Respondents from the big buyers group mentioned that SMEs could even get access to the internet through internet cafes if they lacked access themselves personally. Access to the internet did not come up at all in the interviews with the participants. Only when they filled in the questionnaire did this risk come up. This means that respondents think that good broadband access is required in order for online reverse factoring to occur. This then begs the question of how this product will be rolled out to SMEs in rural areas.

### **6.3.3 Risks associated with fraud**

In the interviews, fraud came up as the highest risk associated with reverse factoring. Respondents from the big buyers group thought that their personnel could collude to enter bogus invoices in the system (proposition 8). In countries where reverse factoring has been successful, the big buyers have submitted the invoices themselves and acknowledged the legitimacy of the invoices. Klapper (2006) mentions the Nafin programme of reverse factoring as one of the most successful because invoices are sent by the big buyer to the factor and not by the SME. This method ensures that the invoices sent to the factor are authentic and legitimate. By employing this method, the corruption that happens, especially in government departments will be stopped. One respondent from the big buyers group said they did not have many cases of fraud associated with the invoicing process owing to their efficient systems.

“SMEs and key employees of payments department can collude to send

fraudulent invoices” (proposition 6) came out as the strongest proposition under risks associated with fraud. Big buyers are aware of this risk and this means that checks and balances and separation of duties need to be taken seriously to avoid it. “Extremely survey technology hackers can intercept the big buyers’ payments system and input wrong invoices” (proposition 7) was seen as a moderate risk. Although most of the respondents thought that their internal systems were secure enough to avoid this practice, it was seen as a risk nonetheless. It was thus evident that the respondents viewed internal fraudulent activities as a bigger threat than external ones. This finding is in line with the theory.

#### **6.3.4 Risks associated with wrong goods being delivered**

During the interviews, the big buyers group raised a lot of concern regarding wrong goods being delivered. This concern was prevalent because reverse factoring deals with forward payment of invoices and contracts. Under purchase order finance the factor would have already paid for the goods under instruction from the SME. This posed a major risk for the financier because the big buyer would then refuse to pay for the goods, which were not what they ordered. During the interviews, this risk was just shy of beating fraud as a major risk. When the findings from the interviews and the survey were compared, this risk was not as prevalent in the survey.

“Reverse factoring is prone to risks if a big buyer paying later than 30 days to the factor because of wrong goods being delivered” (proposition 10) was ranked

highest by all the respondents, particularly the financiers. Under reverse factoring the financier forward pays a contract or invoice in the hope that the goods are the correct ones ordered and that the big buyer will pay within 30 days. In the case of wrong goods being delivered, disputes arise. Klapper (2006) cites a good case study about Nafin whereby the big buyer pays the factor regardless of the quality or the correct amount of goods. She states that in the case of disputes, payments from the first month are set-off by the payments in the following month. This means that the factor always receives its money on time regardless of the dispute. She also highlights that in order to mitigate against this phenomenon, the SMEs chosen to participate in these chains are those that have supplied the same big buyer for at least six months. This condition ensures that the SMEs with which the financier works have a sound track record and will not supply wrong goods.

“Reconciliation of payments and receipts on reverse factoring may be difficult due to wrong goods being delivered” (proposition 11) was viewed as the least risk under this category. This might be partly due to both big buyers and financiers having confidence in their accounting departments.

### **6.3.5 Risks associated with the efficiency or lack thereof of the legal system**

The South African legal system did not surface a lot during the interviews apart from the case of the PFMA. This Act protects SMEs against greedy financiers who take advantage of SMEs by forcing them to give the financiers authority to get payments directly from the big buyers. The flipside of the PFMA is that

noble financiers are unable to finance SMEs. Financiers have had cases of SMEs taking all the funds and disappearing. As cited in Kaufmann, Kraay and Mastruzzi (2003), the cost of contract enforcement, rule of law, corruption and political stability are important factors to consider in factoring transactions.

Most respondents thought that “without a proper legal system, reverse factoring is risky for financiers” (proposition 12), but they did not accept that “South Africa has a strong enough legal system to deal with reverse factoring transactions” (proposition 14). This indicates the importance of an efficient legal system if reverse factoring is to prosper in a country.

## **6.4 Respondents’ understanding of the rewards associated with reverse factoring**

### **6.4.1 Rewards associated with the provision of liquidity to SMEs**

The interview process produced an overwhelming majority of respondents indicating that the provision of liquidity is a major reward for SMEs and big buyers. Liquidity was seen as the biggest impediment to service delivery amongst SMEs as lack of liquidity forced SMEs to go to loan sharks for funding which often landed them in more trouble than before. Loan sharks in particular charged interest rates that ate away SMEs’ margins. Reverse factoring was seen as a technology that could solve this liquidity crunch amongst SMEs. Most respondents from the big buyers group also thought that this financing technology would even help bring back those SMEs that had given up on

supplying the government.

Among other results from the survey, respondents did not rank liquidity as the number one reward associated with reverse factoring. Instead they ranked the indirect benefits of liquidity, namely, economic activity as an alleviator of poverty, highest. Klapper (2005) outlines the benefits of reverse factoring in Mexico particularly for SMEs in rural arrears who would not qualify for any financing from traditional lenders. “Reverse factoring will provide liquidity to SMEs” (proposition 15), followed by “Liquidity will allow SMEs to tender for more contracts” (proposition 16) came up as the best rewards under the liquidity category. This shows that cash flow is important to SMEs. In South Africa, the lack of working capital for SMEs has been one of the contributors to small business failures. In Mexico, the Nafin programme has provided liquidity to 70 000 SMEs and has 159 big buyers that participate in what they call the “productive chains”.

Respondents contradicted themselves by ranking “Reverse factoring as the best solution for paying SMEs quicker because it uses the default risk of the blue-chip company instead of the credit risk of the SME” (proposition 18) after many other propositions. This might be a sign that SMEs prefer other financing technologies that work in line with reverse factoring.

“Through reverse factoring SMEs will get payments within 48 hours instead of 30 , 60 or 90 days ” (proposition 17) was the least rated in this category.

#### **6.4.2 Rewards associated with economic activity boost**

Interviews with big buyers and financiers supported the proposition that “Reverse factoring will boost economic activity amongst SMEs” (proposition 19) and big buyers. This proposition was indirectly linked to “Reverse factoring will allow more economic activity between blue-chip companies and SMEs” (proposition 20) and liquidity as a precursor to a boost in economic activity. These two propositions were then linked to more employment, which would lead to “Economic activity is key to alleviating poverty” (proposition 21).

Big buyers also cited examples where they stopped awarding big contracts to SMEs because they had failed to deliver on previous smaller ones.

Respondents viewed proposition 21 as the highest reward and the one that needs more attention. Many successful cases have been seen in eastern European and Latin American countries where reverse factoring was used to boost economic activity. These are countries with fewer resources and systems than South Africa. Lessons from these countries would be beneficial for policy makers in South Africa. Proposition 20 was the second most rated reward under this category. Bakker, Udell, and Klapper (2004) report that the productive chains in the Nafin programme in Mexico work well in creating economic activity amongst SMEs and big buyers. The Nafin programme has brokered more than 2 million transactions with 4 000 reverse factoring transactions a day to date.

#### **6.4.3 Rewards associated with on time delivery by SMEs**

On time delivery by SMEs is crucial to big buyers in high-risk industries. In cases of shutdowns where project timelines have to be adhered to, opportunity costs of missed delivery times cost big buyers millions per day. During the interviews, big buyers stated that they were apprehensive about awarding tenders for crucial stock items to SMEs during shutdown periods or even during the normal course of business. This fear was created by SMEs who failed to deliver ordered goods on time, which in turn led to delays in downstream processes. Government big buyers mentioned cases where tenders were awarded to SMEs for books for the Department of Education and medicine for the Department of Health. These items need to be delivered on time, as any delays might be fatal. Respondents reported the interviews that they saw reverse factoring as a solution to this problem.

“Through reverse factoring SMEs will be able to deliver goods/services on time” (proposition 22), followed by “SMEs could not deliver goods on time partly due to lack of funding” (proposition 23) were the rewards rated least by respondents. This was in direct contrast to what the big buyers said during their interviews. SME respondents thought that the technology and skill required to deliver goods and services was also a factor. SMEs said that the cause of late deliveries was sometimes the lack of machinery/equipment required to produce the goods. Other factors included the time frame associated with importing raw materials from overseas. As much as liquidity is required to procure/import raw materials, the process associated with importing materials added further delays to the



delivery process.

This revelation then opened another dimension to SME performance and support, namely that SMEs need technological support over and above financial support. Klapper (2005, 2006) highlights the support element that the Nafin programme provides to its SMEs by way of training as an added solution. These are great lessons for the South Africa context as most big buyers award multi-million rand tenders to SMEs without giving them either financial or technical support. This has proved to be a recipe for failure. The government itself drafts good policies that mean well without providing a proper road map of success for the SMEs. A case in point for South Africa is the BBBEE codes of good practice that force big buyers to give a big portion of their procurement to SMEs. These initiatives by the government include the mining charter and the financial charter, which postulate great policies, but lack the support element. This has caused most SMEs to fail and be black listed by big buyers due to not delivering goods on time.

#### **6.4.4 Rewards associated with fulfilment of mandates by big buyers and financiers**

Big buyer respondents to the interviews agreed that they had mandates to help SMEs to grow. These mandates are clearly laid out in the BBBEE codes of good practice, the New Growth Plan, and Operation Bataala from the expanded public works programme. Respondents from the big buyers group acknowledged that these mandates were hard to fulfil without financial support.

Financiers from the DFIs mentioned that their mandates were to fund SMEs, but lack of collateral and capabilities hindered their success in funding them. These participants agreed that a financing product that bypasses the requirement of collateral and security, such as “Reverse factoring will help DFIs to fulfil their mandate of financing SMEs” (proposition 24).

During the survey, respondents did not rank “Reverse factoring will help DFIs fulfil their mandate from government which are outlined in the New Growth Plan, IPAP, and ASGISA” (proposition 25) that high compared to others, maybe due to dissatisfaction from SMEs about the success of DFIs in fulfilling this mandate. Proposition 24 closely followed the previous reward, but they were both very far from the rewards provided by access to liquidity.

#### **6.4.5 Rewards associated with more employment by SMEs**

Respondents in the interview process thought that SMEs were sceptical of hiring more staff because they were afraid big buyers would not pay in the required 30 days after invoice. SMEs could not pay employees’ salaries if they did not receive these payments from big buyers. This has been prevalent mostly among government big buyers who sometimes pay even after 90 days.

“Reverse factoring will help alleviate unemployment as SMEs will be able to employ more people on the back of their improved liquidity” (proposition 26) was ranked second highest in this category. This means that liquidity is one of the important factors that can lead SMEs to employ more staff. “Unemployment in

South Africa is partly due to lack of entrepreneurship which comes from lack of liquidity” (proposition 27) ranked the highest in this category. Respondents ranked employment as the third highest reward out of a total of five.

## Chapter 7: Conclusions and recommendations

The primary objective of this research was to examine the risks and rewards associated with providing reverse factoring as a financing technology for making working capital accessible to SMEs in South Africa. To undertake the objectives above, the research adopted a semi-structured interview approach and field surveys methodology to assess the risks and rewards of reverse factoring in the South Africa.

The survey and interviews were supported by case studies from South Africa, Mexico, Latvia, Belgium, Italy, Lithuania, Serbia and Poland. The results of the field survey suggested that there existed more rewards than risks for providing reverse factoring in South Africa from the perspective of big buyers, SMEs and financiers.

The clients, namely SMEs, new companies as well as already existing large businesses, could be interested in making use of reverse factoring as a viable means of accessing working capital. They felt it would be ideal particularly for factoring services to be offered by DFIs, in accordance with their mandate. They cited cases where the DFIs took too long to come up with a decision to fund them, and where the funding technologies did not appeal to them as SMEs.

Factoring and reverse factoring in particular was not well known and was less developed in South Africa. There were at least seven private factoring companies operating in South Africa. In addition, the big four commercial banks

also offered factoring, but not in the strict definition of the term. The big four banks only dealt with big companies with big turnovers and they also required collateral before they could enter into what they call debtor financing agreements.

One of the DFIs said that it was already looking at reverse factoring as a method of funding SMEs. Most of the big buyers cited that in order for reverse factoring services to take off effectively, there was a need to tackle the risks that came up in the research. These risks included a proper and enforceable legal framework, increased awareness of information, simplified reverse factoring services, and skills development. Another issue raised was the need for capital to fund the optimal take-off of the reverse factoring businesses. The research established that reverse factoring is a very useful working capital and cash flow management facility, which would provide market participants with more options to access financial services. Reverse factoring could also minimise the debtors department of a big buyer and enable businesses to negotiate better rates with their creditors.

It could be deduced that a reverse factoring approach could be highly appropriate in South Africa, but this was hindered by poor information on SMEs, weak IT infrastructures, and a lack of understanding and scepticism from banking institutions about reverse factoring. This was also due to the legacy of the apartheid system, which prevented blacks from accumulating any form of collateral. The main advantage of reverse factoring is that it can be done without recourse. The “reverse factoring framework” could be modelled on the

Nafin programme instituted in Mexico and it could function with all the DFIs, the big four banks and fixed income investors acting as financiers. Chains between “big buyers and small suppliers” would be created and a private factoring company would administer the documents transfer. The role of the private factoring company in the transaction would be to broker the factoring services, i.e. register participating SMEs and collect information on big buyers. The private factoring company could also refinance financial institutions involved in the reverse factoring business. After concluding a factoring transaction, funds would be transferred directly to the SME’s bank account, and the factor would become the creditor.

The cost of factoring in Mexico is below the normal lending rates of the banking institutions. In the case of South Africa, DFIs are endowed with funds from the fiscal. These funds do not incur cost of capital because they are offered by the government to help boost entrepreneurship. The review of the case study countries revealed that the critical success factors were: the hands-on approach of the factoring companies; a continuous follow-up with clients; and technical assistance and training provided to SMEs. Only a very limited number of SMEs defaulted on the payments on reverse factoring. In most cases, it was less than 10% in all case study countries with lower than 1% for the Nafin programme in Mexico. To mitigate against loss from defaults, DFIs could buy credit insurance on behalf of the SMEs.

## **7.1 Recommendations arising from the risks and rewards uncovered for reverse factoring**

Given the above background, the research recommends the following actions in order to mitigate against the risks associated with reverse factoring:

Reverse-factoring services could be extended to SMEs involved in government tenders, the construction industry, as well as those which are oriented towards exports. This could be done provided these SMEs supply reputable big government institutions.

Reverse factoring companies would have to ensure that the performance of the SMEs is continuously monitored and should not only contact them when they default on payments. This constant monitoring will ensure that SMEs are supported so that they can grow.

On the risk of a lack of collateral by SMEs in South Africa, reverse factoring companies and DFIs must ensure that they only deal with big buyers of above investment grade credit rating. They should also deal with government institutions with a track record of making payments on time. In addition, reverse factoring companies must:

- buy credit insurance on behalf of the SMEs to mitigate against default;
- only deal with SMEs that have supplied the same products to big buyers before;
- only provide the product/service to SMEs with long-term contracts with big buyers and not once off deliveries. This will ensure that the SMEs respect the contracts as they are ongoing and any bad behaviour would impact their future relationship with the big buyer.

On the risk associated with a lack of broadband and internet access, SMEs must be encouraged to invest in IT, to benefit from factoring if the reverse factoring approach is adopted.

On the risk of fraud, big buyers must provide the invoices themselves directly to the reverse factoring product providers. This will ensure that SMEs do not submit fraudulent invoices. Payment personnel of big buyers must sign a declaration that the invoices they send to factors are correct to the best of their knowledge. In cases of online reverse factoring, proper encryption technology must be incorporated into the website.

On the risk of wrong goods being delivered to big buyers, only SMEs with a track record of correct delivery should be allowed to participate in the chains . To mitigate against difficulties in reconciliation of payments, big buyers must pay the factor the full amount of the goods even in the case of returns. The shortfall for the big buyer will be re-adjusted from the following month's orders.

The South African system recognises electronic signatures and the Debtor Finance Act protects factoring contracts. On government contracts involving factoring, the PFMA must be changed to protect factors that finance SMEs. This will help to open doors for more financiers to participate in financing SMEs.

Given the limited information about factoring services and scepticism from many banking institutions, DFIs should take the lead in the development of factoring services. This could be done by way of a reverse factoring approach, in which a



private reverse factoring company would create a platform for various players to interface with one another. In addition, the private reverse factoring company should provide refinancing to banks and other financial institutions, which participate in the reverse factoring programme, and should not factor accounts receivable directly.

Public education or SMEs' awareness needs to be intensified regarding the use of factoring services. This could be achieved through a collaborative approach by the DFIs and the DTI.

For factoring to succeed, the government and other big buyers are to be encouraged to pay their accounts due with SMEs, on time.

A collaborative approach involving the government, SMEs, banking institutions and other private sector institutions should be engaged in an attempt to increase access to finance for SMEs in South Africa. In addition, such institutions are to be encouraged to train and provide skills development on factoring.

**Further Research:**

A study on how reverse factoring can be used in the micro loan market is still required. This is an area where this kind of financing technology is desperately needed.

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## Appendix A: Qualitative Interview questions

Interview Questions:

Name:

Date:

a)What is your understanding of Reverse Factoring ?

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b.) What in your opinion are the risks of providing reverse factoring as a financing technology for small and medium sized enterprises in South Africa?

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c.) What in your opinion are the rewards of providing reverse factoring as a financing technology for small and medium sized enterprises in South Africa?

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## Appendix B: Quantitative Interview questions:

### Appendix 1. Questionnaire

Name		Date			
Sex		Male	Female		
Race		Black	White	Indian	Colored
Occupation		Finance Manager	Head of Procurement		
Age		20 - 30	31-40	41 - 50	51 - 60

Please cross the appropriate box

#### Risks

		1	2	3	4	5
<b>Proposition 1 to 2 relate to collateral</b>						
1	A lack of collateral by SMEs is a risk to the financier because they have no recourse apart from payment from the big buyer.	Strongly disagree	disagree	Neutral	Agree	Strongly Agree
2	Without collateral, the financier can lose all funds transferred to the SME in nonrecourse factoring.	Strongly disagree	disagree	Neutral	Agree	Strongly Agree
<b>Propositions 3 to 4 relate to broadband</b>						
3	A lack of internet connections to other SMEs will impede online reverse factoring transactions.	Strongly disagree	disagree	Neutral	Agree	Strongly Agree
4	Lack of funds to connect to the internet may stifle online reverse factoring	Strongly disagree	disagree	Neutral	Agree	Strongly Agree
<b>Propositions 5 to 8 relate to fraud</b>						
5	Reverse factoring is prone to fraudulent invoices.	Strongly disagree	disagree	Neutral	Agree	Strongly Agree
6	SMEs and key employees in payments department can collude to send fraudulent invoices.	Strongly disagree	disagree	Neutral	Agree	Strongly Agree
7	Extremely technology savvy hackers can intercept the big buyers payments system and put in wrong invoices.	Strongly disagree	disagree	Neutral	Agree	Strongly Agree
8	Payments personnel on big buyers can insert fraudulent invoices for themselves.	Strongly disagree	disagree	Neutral	Agree	Strongly Agree
<b>Propositions 9 to 11 relate to wrong goods/services</b>						
9	Reverse factoring causes a risk to the financier if the goods delivered are not what the big buyer asked for.	Strongly disagree	disagree	Neutral	Agree	Strongly Agree
10	Reverse factoring is prone to risks if a big buyer paying later than 30 days to the factor because of wrong goods being delivered.	Strongly disagree	disagree	Neutral	Agree	Strongly Agree
11	Reconciliation of payments and receipts on Reverse factoring maybe be difficult due to wrong goods being delivered	Strongly disagree	disagree	Neutral	Agree	Strongly Agree
<b>Propositions 12 to 14 relate to the legal system</b>						
12	Without a proper legal system reverse factoring is risky for financiers/factors.	Strongly disagree	disagree	Neutral	Agree	Strongly Agree
13	Online Reverse factoring will only work in a legal system that acknowledges electronic agreements.	Strongly disagree	disagree	Neutral	Agree	Strongly Agree
14	South Africa has an efficient enough legal system to deal with reverse factoring transactions.	Strongly disagree	disagree	Neutral	Agree	Strongly Agree
<b>Rewards</b>						
<b>Propositions 15 to 18 relate to Liquidity</b>						
15	Reverse factoring will provide liquidity to SMEs	Strongly disagree	disagree	Neutral	Agree	Strongly Agree
16	Liquidity will allow SMEs to tender for more contracts	Strongly disagree	disagree	Neutral	Agree	Strongly Agree
17	Through Reverse factoring SMEs will get payments within 48hrs instead of 60,90 days.	Strongly disagree	disagree	Neutral	Agree	Strongly Agree
18	Reverse factoring is the best solution for paying SMEs quicker because it uses the default risk of the blue chip company instead of the credit risk of the SME.	Strongly disagree	disagree	Neutral	Agree	Strongly Agree
<b>Propositions 19 to 21 relate to economic activity</b>						
19	Reverse factoring will boost economic activity amongst SMEs	Strongly disagree	disagree	Neutral	Agree	Strongly Agree
20	Reverse factoring will allow more economic activity between Blue-chip companies and SMEs.	Strongly disagree	disagree	Neutral	Agree	Strongly Agree
21	Economic activity is key to alleviating poverty.	Strongly disagree	disagree	Neutral	Agree	Strongly Agree
<b>Propositions 22 to 23 relate to delivery on time</b>						
22	Through Reverse factoring SMEs will be able to deliver goods/services on time.	Strongly disagree	disagree	Neutral	Agree	Strongly Agree
23	SMEs could not deliver goods on time partly because of lack of funding.	Strongly disagree	disagree	Neutral	Agree	Strongly Agree
<b>Propositions 24 to 25 relate to mandates</b>						
24	Reverse factoring will help DFIs fulfill their mandate of financing SMEs.	Strongly disagree	disagree	Neutral	Agree	Strongly Agree
25	Reverse factoring will help DFIs fulfill their mandates from government which are outlined in the New growth plan, IPAP and ASGISA.	Strongly disagree	disagree	Neutral	Agree	Strongly Agree
<b>Propositions 26 to 27 relate to employment</b>						
26	Reverse factoring will help alleviate unemployment as SMEs will be able to employ more people on the back of their improved liquidity.	Strongly disagree	disagree	Neutral	Agree	Strongly Agree
27	Unemployment in South Africa is partly due to lack of entrepreneurship activity which comes out of lack of liquidity.	Strongly disagree	disagree	Neutral	Agree	Strongly Agree



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