https://doi.org/10.4038/ijabf.v9i1.138

International Journal of Accounting & Business Finance
Vol.9, No.1, June 2023 Issue. pp. 167 - 187

USE OF GOVERNMENT ASSISTED FINANCING BY SMES: AN EMPIRICAL EXAMINATION OF CANADIAN SMES USING THE FINANCIAL GROWTH CYCLE

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Received: April 26, 2022 Revised: May 12, 2023 Accepted: June 20, 2023

Abstract

This study examines Small and Mid-sized Enterprises (SMEs) through the lens of the financial growth cycle, which emphasizes that an entity's financing options change as they change in size, age, and informational transparency. For this study, we examined SMEs in the city of Corner Brook, the second largest city in the province of Newfoundland & Labrador, analyzing their sources of capital while specifically focusing on two main attributes, size and age. Utilizing the financial growth cycle model, we examined how efficiently SME financing needs are being met through the various options available to them as they grow in size and age. We discuss in particular, findings related to government assisted financing, concluding that as SMEs grows older, they are increasingly likely to opt for federally funded financing as a source of capital. In this study, we sampled SMEs in one city (Corner Brook) to empirically test the financial growth cycle paradigm. The paper investigates the role that government sponsored financing plays in overcoming the information opacity problem of SMEs at different stages of the growth cycle. The study observes that government sponsored financing appears to play an important role in SME financing. The finding suggests that firms should consider accessing sources of government financing even at an early stage in the financial growth cycle.

Keywords: Small and Mid-sized Enterprise, Financing, Financial Growth Cycle, Canada
JEL Code: M131

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1 Introduction

When one thinks of key players in the overall economic development of a country, Small and Mid-size Enterprises (SMEs) do not necessarily come to mind. Research has established, however, that SMEs in fact play a significant role in the economic development of most developed and developing countries in terms of creating jobs, generating innovation and new ideas, contributing to the Gross Domestic Product, and welfare (Forkuoh, Li, Affum-Osei, and Quaye, 2015). According to the Canadian Survey on Financing of Small and Medium Enterprises (Statistics Canada, 2020), SMEs are defined as businesses with fewer than 500 employees and annual revenues of less than $50 million. SMEs are considered the engine of the global economy (and regional economies) since they make up almost 90% of companies and hire 50% of the global labor force; it is estimated that they will provide around 600 million jobs by the year 2030 (Batrancea et al., 2022). In Canada, Innovation, Science and Economic Development Canada (2020) estimates that SMEs account for more than 50% of the country's overall GDP. Based on a recent report prepared by the Government of Canada's Department of Industry, there were 1.23 million businesses in Canada as of December 2019, of which 1.2 million (97.9 percent) were small businesses and 22,905 (1.9 percent) were medium-sized businesses (Innovation, Science and Economic Development Canada, 2020).

Despite the fact that SMEs provide employment to a large share of the labor force in both developed and developing countries, they receive limited external funding compared to large firms, and thus often face a financing or funding gap (Abraham & Schmukler, 2017). Since financing is regarded as the lifeblood of economic activities, SMEs can survive, develop, and thrive in the open market only when given access to adequate financing (Batrancea et al., 2022). Although much progress has been made to understand the factors and incentives that drive the financing policies of large publicly traded corporations, not as much is known about the policies for financing SMEs, which is surprising given their economic significance.

It is widely believed that unlike the financing policies that apply to large firms, financing policies applied to SMEs are driven primarily by the availability of capital, and bear little correlation to those factors that influence large corporations such as their

tangibility of assets, growth options, or corporate tax structure. SMEs are notoriously informationally opaque as their labor contracts, supplier contracts, and customer relationships are rarely reported in the media and are generally known to only the firm's insiders. Furthermore, SMEs tend to have high mortality rates and insufficient assets or reputations to survive sustained losses, which make signaling or revealing a firm's quality difficult. The result of all this is that many SMEs are often considered too high of a risk by various debt and equity sources, and are therefore often unable to obtain reasonably priced capital from conventional and non-conventional sources of financing enjoyed by large firms. In some cases, the informational opacity of SMEs may be so severe that obtaining any financing at all is impossible. In such situations, many national and local governments around the world have implemented various initiatives to help close this funding gap so that SMEs in their jurisdictions have access to the financing they need (Abraham and Schmukler, 2017).

It has been argued that, on their own, to address the problem of informational opaqueness, small to medium-sized firms tend to sequence their supply of financing in a pattern known as the financial growth cycle (Berger and Udell, 1998). This model postulates that as a firm grows in age and in size, its sources of financing change to meet information revelation requirements. In this paper, we investigate the financial growth cycle by examining SMEs in Newfoundland and Labrador, Canada. The paper further analyzes the sources of capital for SMEs using the parameters of age and size. Unlike extant studies which take both the age and size of a firm as proceeding along the same timeline, we propose a model that allows for small firms that have grown in age but not in size, as well as firms that have grown rapidly in size but are still relatively young. Using this model, we analyze how effectively conventional and non-conventional (government sponsored) sources of capital meet the financing requirements of SMEs as their businesses develop.

Results suggest some support for the growth cycle paradigm. An additional important finding from our research and analysis is that government sponsored financing also plays a key role in overcoming the information opacity problem faced by firms in the initial stages of the growth cycle. Finally, the paper identifies some limitations that SMEs

face while securing external financing. These limitations have microeconomic implications for such entities, as well as macroeconomic implications of which policy makers need to be aware.

2 Literature Review

This paper is associated with research on sources of financing for SMEs, constraints on financing for SMEs, and on government initiatives to help SMEs meeting their financing needs given the constraints. Studies on SMEs financing have shown that they generally have the same sources of financing as large firms, but that they face more severe informational and transactional constraints in trying to access the financing sources (Beck, 2007; Berger & Udell, 1998; Dong & Men, 2014). Typically, the sources of financing can be categorized as internal versus external, debt versus equity, and formal versus informal. For example, a report from the Organization for Economic Co-operation and Development (OECD) entitled "Small Businesses, Job Creation and Growth: Facts, Obstacles and Best Practices" (OECD, 1998) notes that the main sources of funding for SMEs include bank loans (formal external debt), retained earnings (formal internal equity), private equity (informal internal equity), external equity (informal external equity),, venture capital (formal external equity), and leasing (informal external debt). The report also states that there is a wide variation in the use of funding methods between the OECD member countries.

With regards to the severity of the informational and transactional financing constraints faced by SMEs, it is widely held that these lead to a lack of adequate financing. That is, they create a "funding gap" whereby there is a mismatch between the amount of funding that SMEs need for their optimal operations and growth, and the amount of funds that they actually receive (Cressy, 2002; Esho & Verhoef, 2018). The literature identifies many different factors that may have an impact on this lack of adequate financing and how these factors may determine the financing utilization patterns and behaviors of SMEs. It has also argued that SMEs in emerging markets tend to face a more exacerbated lack of adequate financing because their financial market systems and institutions are still underdeveloped and therefore more prone to have even greater informational and transactional market imperfections (Dong & Men, 2014).

Studies on the causes SMEs' lack of adequate financing have generally taken one of two approaches. The first approach is the supply-side approach (Esho & Verhoef 2018) which considers the causes of SMEs' financial constraints to be information asymmetries between the SME and the source of financing, These informational asymmetries have been termed "informational opaqueness" and it has been suggested that small firms may be particularly vulnerable to financing challenges because they are often very informationally opaque (Dong & Men, 2014) leading to a reduced willingness of financial institutions and financial markets to supply funds to SMEs due to an adverse selection or moral hazard issues. Adverse selection refers to difficulties in the ex-ante assessment of the quality and risks of the SME (Akerlof, 1970; Stiglitz & Weiss, 1981; Devos et al., 2012), while moral hazard refers to the ex-post inability of the financing source to be able to effectively enforce the agreed terms of the contract. Adverse selection is usually manifested as (i) a lemons problem (Akerlof,1970; Deves et al., 2012) or (ii) credit rationing (Stiglitz & Weiss, 1981; Ma et al., 2019). Moral hazard is usually manifested as (i) asset substitution, which arises when assets are replaced with riskier assets or investments (Steijvers et al., 2010; Stulz and Johnson, 1985); (ii) shirking, which is when less than optimal amounts of effort are exerted (Ono et al., 2012); and (iii) under-investment, which is when less than the optimal amount of investment assets made by the SME (Manove et al., 2001).

The second approach is the demand-side approach where informational and transactions costs reduce the SME's optimal demand for financing and investment. The transactions cost may be related to (i) search costs, which are the costs of identifying and acquiring information about potential partners (Hart, 1989); or (ii) bargaining costs, which are the costs of negotiating, documenting, and enforcing an agreement (Hart, 1989; Simester & Knez, 2002). The informational costs occur because, even when funds are readily offered to the SME by a financing source, the issues of adverse selection and moral hazard make it such that the funds are offered at terms that are too expensive for the SME to be profitable.

Two seminal papers laid the foundational theories as to how the informational and transactional constraints lead to financing utilization patterns. Myers and Majuluf (1984)

developed the "pecking order theory which takes the demand-side approach and posits that firms will choose finance sources in a particular order that minimizes the level of the informational and transactions costs. This results in internal sources (retained earnings and trade debt) being utilized first, followed by bank debt and then by outside equity. It has been argued that the pecking order theory is even more applicable to SMEs than to larger firms due to their greater informational opaqueness and greater transactions cost (Lopez-Gracia & Sogorb-Mira 2008).

The second foundational theory is the financial growth cycle model developed by Berger and Udell (1998) which proposes that as a business proceeds through its economic life cycle, it will change its sources of financing to adjust to its increasing socio/economic experience in the marketplace and decreasing information opaqueness. This model presents firms on a size/age/information continuum, and describes the increasing array of financing options available to the firm as it survives and grows (Mac an Bhaird & Lucey, 2011). Berger and Udell (1998) claim that this implies a financing continuum where smaller/younger/more-opaque firms lie near the left end of the continuum, relying mostly on insider finance, trade credit, and/or angel finance, while larger/older/less-opaque firms rely on intermediated finance, such as venture capital (equity) or banks (debt). If the firm survives to reach a sufficient size and age, it may then be able to tap into public equity and debt markets. This concept of financing proceeding in stages is well established in the both the practitioner and academic literature on venture capital (Pratt & Morris, 1987), as well as in the entrepreneurial finance literature (Berger & Udell, 2003). It is illustrated in Figure 1 below:

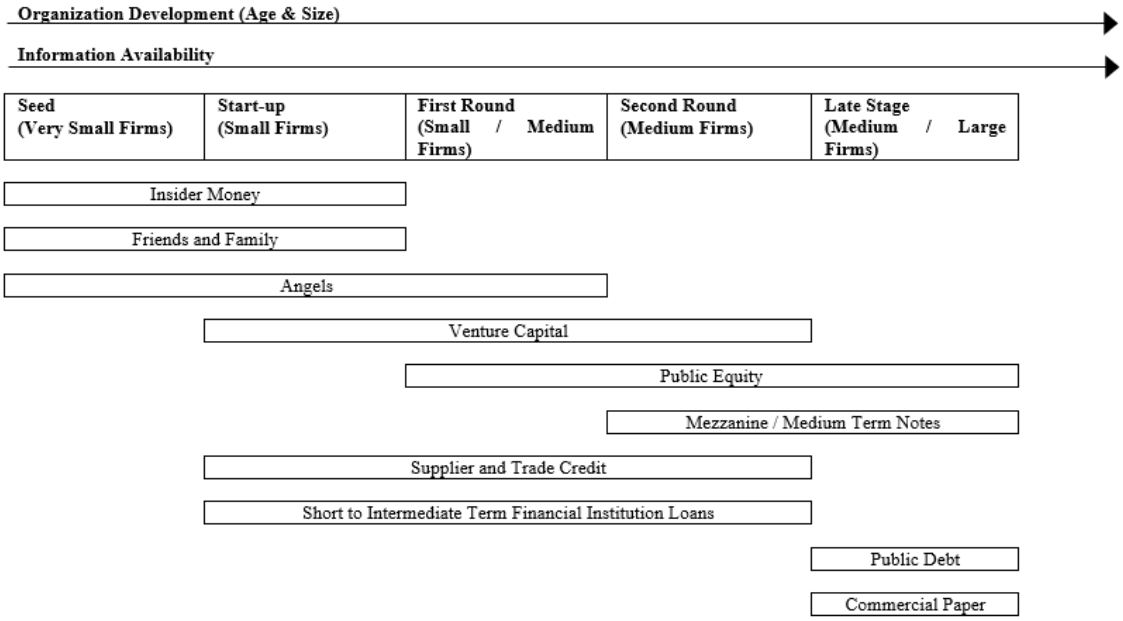

Figure 1: Stages of SME Financing

Source: Adapted from the 2003 Global Entrepreneurship Monitor.

The financial growth cycle model has led to studies investigating how firm characteristics and institutional structures act as moderators on the impact of market failures on the financial constraints and cross-sectional financing patterns of SMEs. For example, determinants such as ownership, firm age, and a lack of access to local formal financial institutions have been shown to have an effect on the problem (Dong & Men, 2014). Furthermore, various models and theories have been established over the years related to SME sensitivity to financing constraints. The traditional approach investigated how sensitive firm investment is to financing constraints, proxied by a measure of internal resources such as cash flow (Hutchinson & Xavier, 2006; Kaplan & Zingales, 1997). Later studies have departed from the investment-cash flow sensitivity approach by considering growth in alternative size metrics (employment and sales) as opposed to growth in assets (investment) (Moscalu et al., 2020).

Given that SMEs are considered vital to local economies in terms of job growth, innovation, and economic output, the issue of their lack of adequate financing (i.e. funding gaps) has led several academic and public policy studies to examine the role of government initiatives in closing the funding gaps. This is related to the debate on

whether these funding gaps are positive funding gaps (which would occur as a result of competitive equilibria) or normative funding gaps which are a result of

market failures related to the information asymmetries and transactions cost discussed above (Cressey, 2002). If the funding gap is as a result of market failures, then government intervention may be warranted through initiatives that involve entering the market with investment funds, direct open financing with government supervision, guarantees to private financing sources, or the subsidization of private financing. (Abbasi et al., 2017; Beck, 2007). However, if the funding gap is a result of a competitive equilibria, then government interventions could have negative consequences such as non-viable SMEs being financed, public investment crowding out private investment, risk shifting by financial sources, or even corruption (Ayyagari et al., 2017; Beck, 2007; Cole, 2009) As noted by Brierley(2001, p75) publication: "Public sector initiatives to support the financing of small firms are best justified if market imperfections result in the private sector not providing capital to firms on competitive terms.".

While the funding gaps to SMEs and the subsequent government intervention initiatives have been the subject of much research (see Parker, 2002 and, more recently, Choudhury & Goswami, 2019 for comprehensive reviews of this literature), there has not been as many empirical studies about the implications to the financing utilization patterns of SMEs. One key implication is that, if the funding gap is due to market failures, then as a firm grows larger/older/less-opaque, it should rely less on public sector financing and more on private, market-oriented financing. This lack of studies investigating the extent and type of financing employed at various stages of growth is an important omission in the literature, as a firm's funding requirements and access to various sources of financing vary significantly over the course of its lifecycle (Finnegan & Kapoor, 2023; Mac an Bhaird & Lucey, 2011).

This paper utilizes the financial growth cycle model and investigates whether the financing utilization pattern of government funding initiatives for SMEs can reveal if the funding gap is due to market failure. In this study, we sampled SMEs from a city in the province of Newfoundland and Labrador in Atlantic Canada to empirically test the financial growth cycle paradigm. The paper investigates the role that government

sponsored financing plays in overcoming the information opacity problem of SMEs at different stages of the growth cycle.

3 Research Methodology

In this section, we outline the methodology used in our analysis. We want to examine how small and medium sized firms' financing options change as they, particularly with respect to government assisted financing. As such, the dependent variables in our analysis are the sources of financing used by the various SMEs in our sample. These variables are binary in that they take values of 1 if that particular financing source was used by an SME and 0 otherwise. Using a standard linear regression model here would be inappropriate given the binary nature of the dependant variables and as such, we employ a probit model, which is a widely used method to estimate binary response models (Greene, 2017),

We denote Y as the source of financing and X as the vector of explanatory variables. In this paper, X represents age (measured in years), size (measured in number of employees), industry (roughly according to NAICS[2]), and company structure (legal form of organization of the company). The probit model we use seeks to relate Y to X according to the estimated probability:

$$\text{Prob}\,(Y = 1) = F(\beta' X) \qquad (1)$$
$$\text{Prob}\,(Y = 0) = 1 - F(\beta' X)$$

Where the set of coefficients, β, represent the impact of the changes of the explanatory variables X on the probability of using a certain source of financing Y. In particular, the probit model takes the function $F(\cdot)$ to be the standard normal distribution $\Phi(\cdot)$ (with $\varphi(\cdot)$ as the standard normal density function) so that we have:

$$\text{Prob}(Y = 1) = \Phi(\beta' X) \qquad (2)$$

[2] North American Industry Classification System (NAICS) Canada. We have combined some industries (for example the extraction industries) to obtain a better distribution See Table 1.

$$= \int_{-\infty}^{\beta' X} \varphi(z)dz$$

The coefficients β are estimated using maximum likelihood. In terms of interpretation, it is important to note that the estimated coefficients β do not represent the usual marginal effects. That is,

$$\frac{\partial \text{Prob}(Y = 1)}{\partial X} = \varphi(\beta' X)\beta \quad (3)$$

As a goodness-of-fit measure, we employ the pseudo-R^2 statistic developed by Estrella (1998). To determine whether β is statistically different from 0, we use a statistic analogous to the t-statistic in linear models. The parameter is statistically significant at the 10% level if the t-statistic exceeds 1.685.

With this methodology, we are thus able to address the question: Given a particular SME's characteristics and stage in its economic growth cycle, what is the likelihood that it will use a particular form of financing?

In view of the financing growth cycle model and the arguments for public sector financing in helping to close financing gaps, this question leads to the following hypotheses:

H_1: The older an SME, the greater the likelihood it will utilize equity and the less the likelihood that it will use debt.

H_2: The larger an SME, the greater the likelihood it will utilize equity and the less the likelihood that it will use debt.

H_3: The older an SME, the less the likelihood it will utilize federally or provincially funded financing.

H_4: The larger a SME, the less the likelihood it will utilize federally or provincially funded financing.

3.1 Data

This study uses data collected from 79 SMEs located in the greater area of the city of Corner Brook, the second largest city in the province of Newfoundland and Labrador, Canada. While the city is not very large in terms of population, it is known to have "an uncharacteristic multi-faceted economic base" based on a relatively large number of SMEs from a diverse range of industries including healthcare, retail, and tourism (Premier Destination, 2013). As mentioned in the Introduction, the Canadian Survey of Financing and Growth of Small and Medium Enterprises (Statistics Canada, 2020) defines SMEs as businesses with fewer than 500 employees and annual revenues of less than $50 million,[3] and in this paper, we adopt the number of employees as our measure of size. Since SMEs are not typically required to file and make their financial information publicly available to securities regulators or financial institutions, there is still a big void in data available on SMEs for researchers.

Based on business location, industry, and importance to the city from a strategic point of view, 357 companies were reviewed from the Government of Newfoundland and Labrador company registry database and two local business organization databases. From these, a sample of 125 businesses were selected and surveyed. A total of 79 completed surveys were collected giving a response rate of 63.2%. A summary of the profiles of the firms in our sample is given in Table 1. In the sample, all industry categories were reasonably well represented with the major industry sectors being wholesale/retail (35%), manufacturing (9%), food and lodging services (9%), and professional services (11%). About 77% of the firms had been in operation for more than five years, and the majority of them (72%) operated as corporations and 84% of the firms had fewer than 20 employees.

[3] Excluded are unincorporated firms with less than $30,000 in revenues, non-profit organizations, government organizations, schools, hospitals, subsidiaries, cooperatives, and financing and leasing companies.

Table 1. Summary Profile of SMEs Selected and Surveyed

Category	% of Firms
Industry	
Agriculture and Mining	3.8
Construction	5.1
Manufacturing	8.9
Wholesale & Retail	35.4
Transport	6.3
Finance	6.3
Food & Lodging	8.9
Publishing, broadcasting & telecommunication	5.1
Real Estate	2.5
Professional Services	11.3
Arts and Recreation	1.3
Administrative and Other Services	5.1
Type of Organization	
Sole Proprietorship	20.2
Partnership	7.6
Corporation	72.2
SME Age	
0 – 12 months	3.8
1 – 5 years	19.0
6 – 20 years	35.4
Over 20 years	41.8
SME Size	
1 employee	
2 – 10 employees	10.0
11 – 20 employees	44.0
20 – 30 employees	30.0
30 – 50 employees	2.0
Over 50 employees	8.0
	6.0

Table 2 below displays the contingency table showing the multivariate frequency distributions of Age and Form of the organizations of the firms in our sample. From these, the marginal and conditional probabilities can easily be determined using Bayes Theorem. For example, the Probability that a firm in our sample is over 20 years old

given that it is a sole proprietorship is Prob (Age <20 | Sole Prop.) = 32.43%. Similarly, Prob (Age <20 | Partnership) = 22.22% , and Prob (Age <20 | Corporation.) = 50.00%. We note that, in our sample, the correlation between the age of firms and the size of firms is 0.5254 and while this is a moderately high correlation, it is low enough to justify not assuming that age and size are proxies for one another.

Table 2. Contingency Table of Age and Form of Organization

FORM	AGE (years)				
	0 - 12	1 - 5	6 - 20	0ver 20	TOTAL
Sole Prop.	4.00%	16.00%	30.00%	24.00%	74.00%
Partnership	0.00%	4.00%	10.00%	4.00%	18.00%
Corporation	2.00%	2.00%	0.00%	4.00%	8.00%
TOTAL	6.00%	22.00%	40.00%	32.00%	100.00%

4 Empirical Results

Recall that the sources of financing we examine are traditional bank debt financing (banks and credit unions), private equity financing, federally funded financing and provincially funded financing. It is important to note that these sources of financing are not mutually exclusive as the firms surveyed were not restricted to raising capital from just one source at a time. Table 3 below shows the correlations between the various sources of financing. From this we can see, for example, that the more likely a firm is to use traditional bank financing, the less likely it is to use private equity financing or federally funded financing, but the more likely it is to use provincially funded financing.

Table 3: Correlations between the various sources of financing

	Trad. Bank	Priv. Equity	Fed. Funding	Prov. Funding
Trad. Bank	1.000			
Priv. Equity	-0.206	1.000		
Fed. Funding	-0.124	0.060	1.000	
Prov. Funding	0.138	0.295	0.239	1.000

As mentioned above, since the number of employees is a key metric in the definition of an SME, we take this as our proxy for the Size variable. We use the number

of years the firm has been in operation as our Age variable, and we use codes 1 to 15 for the Industry variable in the order listed in Table 1 above. For the form of company, we use the codes 1 = Sole Proprietorship, 2 = Partnership, and 3 = Corporation. Hence, for the likelihood that a firm uses debt (as an example), the probit model estimated is:

$$\text{Prob(Debt)} = \Phi(\beta_0 + \beta_1 Age + \beta_2 Form + \beta_3 Industry + \beta_4 Size) \quad (4)$$

The results of the estimations are given in Tables 4 to 7. From these, we calculate that, at the modal values of the independent variables[4], the probability that the firm uses equity is: Prob(Equity) = 0.0857; the probability that the firm uses debt is: Prob(Debt) = 0.8661; the probability that the firm uses federally funded financing is: Prob(Fed) = 0.4151; and the probability that the firm uses provincially funded financing is: Prob(Prov) = 0.2565.

From the survey, we note that most firms raised capital using traditional debt with many supplementing this with a second source of capital. Therefore, it is not surprising to see that none of the coefficients for the probit model for debt (Table 5) are statistically significant, or that the measure of fit, the Estrella R^2, is only 0.0136.

For the other three sources of financing, we have one of the independent variables showing statistical significance. In the next section, we discuss the implications of these parameter estimates for hypotheses $H_1 - H_4$ outlined in the previous section.

5 Discussion

From Table 4 below, we see that, for private equity financing, the coefficient for Industry is marginally significant at the 10% level with a value of -0.172561. Although this implies that the industry an SME is in plays a role in whether or not it chooses to raise capital with (private) equity, the negative sign on coefficient has no meaning, as the Industry variable is a nominal and coded variable. Note that the coefficients on Age and Size are not statistically significant and hence provide no support for hypotheses H_1 or H_2.

[4] We take Form = "corporate" and Industry = "Retail"

Similarly, Table 5 displays no coefficient that is statistically significant. This is not surprising, as almost all SMEs in the sample used debt as one of their financing sources for raised capital. However, the lack of significance once again provides no support for hypotheses H_1 or H_2.

The analysis in Table 6 signifies that, for federally funded financing, the coefficient for Age is statistically significant at the 10% level with a value of 0.031180. In addition, the positive sign of this coefficient implies that as an SME grows older it is increasingly likely to opt for federally funded financing as a source of capital. This is the reverse of hypothesis H_3, which suggests that as an SME grows older it should become *less* likely to use federally funded financing. One possible reason for this result is that, similar to arguments given in Sørheim and Landström (2001), there are certain search costs in obtaining federally funded financing that decrease over time.

Another possible reason for this outcome could be the ease with which federal funding may become available to SMEs. At the early stages of the growth cycle, a firm may not have the resources or know-how to access federally available funding, or the firm's decision makers may simply be dismissive of the idea that they could qualify for such financing. As SMEs mature in age, they gain the confidence and know-how to access federally available funding. The application process may also be intimidating for SMEs in the early stages of the financial growth cycle.

By using the estimated coefficients for the probit model, the graph in Figure 2 below shows how the probability of using federally funded financing changes with the age of the firm.

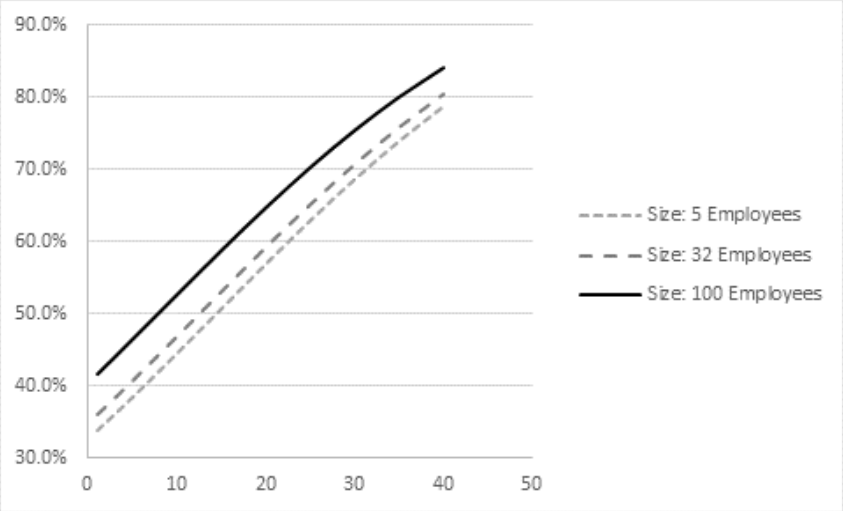

Figure 2. Prob(Fed) vs Age

With respect to provincially funded financing, Table 7 depicts that it is the coefficient for Industry that is statistically significant at the 10% level with a value of -0.996661. Again, although this implies that the legal form of a firm plays a role in whether or not it chooses to raise capital with provincially funded financing, the negative sign on its coefficient has no meaning as the Form variable is a nominal variable.

In summary, while the results show some support for the financial growth cycle paradigm, they are somewhat contrary to what was expected. We do however see that government sponsored financing appears to play an important role in SME financing generally. This finding suggests that firms should consider accessing sources of government financing even at an early stage in the financial growth cycle.

Table 4. Probit Parameter Estimates for Private Equity (other)

Variable	Coefficient	t-statistic	t-probability
Const	0.03594	0.039291	0.968832
Age	0.010467	0.43798	0.663496
Form	0.011935	0.031979	0.97463
Industry	-0.172561	-1.678835	0.100116
Size	-0.006932	-0.73757	0.464604

Estrella R-squared = 0.0803

Table 5: Probit Parameter Estimates for Traditional Bank Debt (Bank & Credit Union)

Variable	Coefficient	t-statistic	t-probability
Const	1.149817	1.396329	0.169466
Age	-0.002042	-0.093143	0.926204
Form	0.093191	0.257385	0.798055
Industry	-0.026811	-0.419111	0.677129
Size	0.004182	0.339901	0.735512
Estrella R-squared = 0.0136			

Table 6: Probit Parameter Estimates for Federally Funded Financing

Variable	Coefficient	t-statistic	t-probability
Const	-0.164122	-0.249938	0.803773
Age	0.03118	1.7158	0.093077
Form	-0.014273	-0.046208	0.963349
Industry	-0.062825	-1.141004	0.259904
Size	0.002121	0.349512	0.728335
Estrella R-squared = 0.1181			

Table 7: Probit Parameter Estimates for Provincially Funded Financing

Variable	Coefficient	t-statistic	t-probability
Const	0.333221	0.425297	0.672647
Age	0.012691	0.663313	0.510514
Form	-0.996661	-1.859399	0.069516
Industry	0.013392	0.238099	0.812885
Size	0.002753	0.560315	0.578044
Estrella R-squared = 0.1365			

6 Conclusion

Despite the fact that SMEs play a vital role in the economic development of any nation, there remains a dearth of research on the topic of government funded sources of financing due to many factors. One of the reasons for this relative absence is the lack of readily available data and information related to SMEs due to their opacity. This paper adds to the literature available in this area in an effort to narrow the research gap related to SMEs specifically as it pertains to their financing, which is vital to their success. The findings will be helpful from a policy perspective at both the federal and provincial levels as the paper shows an increased reliance by SMEs on government funded financing as they progress through the financial growth cycle.

Certain limitations to this study can be addressed by future research in this area. The data used in this study was collected from firms in a specific locality in the province of Newfoundland & Labrador, Canada. Furthermore, the sample size, though sufficient for our purposes, could be made larger and more inclusive. Data collected in the future could be solidified by using a survey that covers a broader range of geographical locations as well as a more sizable number of firms. Another fruitful direction for future research would be to focus on financing needs and availability for SMEs located in rural areas throughout Canada and other countries. Further work is also needed in exploring and understanding the role of governments in assisting SMEs with their need for alternative forms of financing at various stages of the financial growth cycle.

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