



Towards a framework for growing small businesses in Africa



Authors:

Angelo D. Joseph¹ 
Tungamirai Tambandini¹ 

Affiliations:

¹Department of Finance and Economics, School of Business Leadership, University of South Africa, Johannesburg, South Africa

Corresponding author:

Angelo Joseph,
angelo@quantanalyst.co.za

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Purpose: This article presents a critical measure that both African governments and financial institutions can use to gauge whether a small business is likely to contribute meaningfully to economic growth.

Design/methodology/approach: The research was approached by the fact that only more recently has human capital emerged as a key factor for economic growth. Empirical research from developed countries and analysing of human capital in terms of labour growth income were done. In a similar setting, the innovation potential of an African business is heuristically argued to be directly dependent on human capital.

Findings/Results: Human capital aspect is found to be a vital part of a framework for growing small businesses in developed countries. The research showed that human capital in terms of labour growth expectations is essential to fully explain the linear market portfolio returns. Human capital may induce an increase in the number of innovative products, thus indirectly spurring economic growth through the channel of innovation.

Practical implications: Institutions could look to incorporate human capital as a critical factor toward a framework for growing small businesses. However, human capital is but only one key aspect discussed in a framework for growing small businesses in Africa.

Originality/value: There is a benefit to the government and financial institutions to include the human capital aspect in a small business funding framework. It will enable the funders to choose small businesses that can better contribute to the market returns and have a higher likelihood of releasing innovative products.

Keywords: Africa; small businesses; human capital; business growth; innovation potential.

Introduction

Africa is currently undergoing multitude transformations to catch up with other regions of the world (Ajilore & Fatunbi, 2018). As a result, the growth of small businesses in Africa is in catch up mode compared to the developed world. For example, in South Africa, small businesses are generally more financially constrained than large firms mainly because of the lack of access to external funding (Fatoki & Van Aardt Smit, 2011). The business constraints are not necessarily because businesses do not know where to find funding. Financial institutions, especially banks, are a channel businesses can use to access funding (OECD, 2016; Rodriguez, 2008; Udell, 2004).

Banks are well regulated and risk managed and usually have a widely diversified capital base. Banks should therefore be in an excellent position to absorb the small business capital risks and lift some of the business limitations (Berger, 2006). However, small business growth in Africa is slow to a large degree because banks are not able to assist, even though their strongly diversified balance sheets could mitigate the small business capital at risk.

A small African business can possibly approach the government for financial assistance. The problem is that the African banks and the government are highly interdependent. In South Africa, the government usually issues an irrevocable guarantee to banks (in the repo system) to protect the national deposits and provide some margin of safety if the credit market undergoes contagion because of international market volatility (Suryanto, 2015). The economic performance and outlook of the government (such as the growth, inflation and global credit outlook) is therefore indirectly dependent on the financial performance of banks.¹ Thus, if the banks are unwilling to help small businesses grow, it is not unreasonable to expect the government will also not help these businesses, given their covenants with the banks.

1.The top five banks in Africa in general have a better global rating than the governments.

Is it possible that the banks and the government use a small business scoring process that does not account for the key factors to business growth? The scoring model or application process at both the banks and government may ignore or underweight the human capital (HC) component resulting in unsuccessful business funding applications. In the short term, HC is vital to kick-start small business growth. However, the long-term importance of HC is not apparent. In a more recent applied economics study, the persistence of HC was investigated and found to be a leading indicator of innovation and economic development. In fact, the HC was shown to be significantly positively correlated in the long run to innovation and economic development (Diebolt & Hippe, 2019). There is a definite need in Africa for more innovative businesses that can improve productivity and sustainability and, at the same time, ensure growth and profitability (Ajilore & Fatunbi, 2018). Focusing on HC as a key will enhance banks' and the government's ability to identify small businesses that have innovation potential in the long run and help ensure business economic growth and profitability in Africa.

The purpose of this article is twofold: firstly, to delineate the small business challenges in Africa to highlight the potential solutions, and secondly, to introduce the idea that the government and banks consider the HC aspect of a small business as a viable proxy to investment returns and innovation production. Finally, the article ends with the conclusion and outlook, which covers the inferences and policy implications, that may be used to strengthen the African small businesses, banks and government relational frameworks.

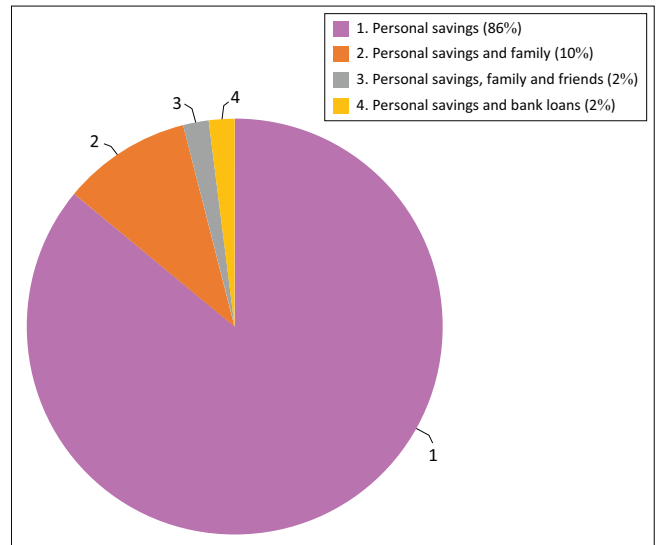
Small business in Africa

Small business growth is a complex theme. Business growth being objective and very widely defined certainly contributes to this complexity. A literature review on the perspective of future studies on the growth of small businesses over the last decade revealed that there is still no agreement on measuring growth (Machado, 2016). In this section, the state of small businesses in Africa is presented with the aim of isolating some of the problems hampering their growth.

In Africa, especially in South Africa, small business² financing for growth purposes is scant. The funding problem can be understood by considering the opaqueness of small businesses and the model-based process followed by the institutions. Financial institutions cite small business opaqueness as one of the main factors that hamper their small business financing (Financial Services Regulatory Task Group, 2007; Herrington & Kew, 2014; Shijaku & Kalluci, 2013). As a result, a small business finance application usually takes much more days for financial institutions to process than other loans. The lengthened turnaround financial approval time is because of the lack of quality data information (opaqueness) being provided on the part of business, which forces the institutional credit management

2.The small business definition and rationale is defined in Appendix 1.

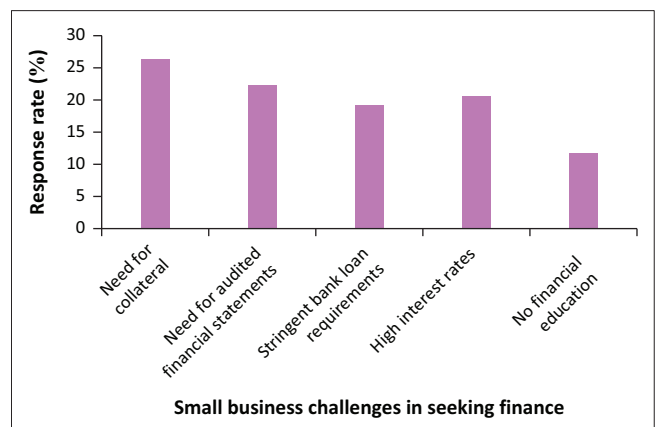
3.Gauteng province is the economic hub of Africa and a sample collected in this province is highly representative of the economics in South Africa.



Source: Masehe, M. (2019). *The need of financial management in small businesses, Master of Business Leadership (MBL) report*. Johannesburg: School of Business Leadership, University of South Africa

Note: 100 business owners and managers interviewed in 2019 in the Gauteng³ province.

FIGURE 1: Sources of small business funding. In South Africa, most of the small businesses are funded from personal savings.



Source: Masehe, M. (2019). *The need of financial management in small businesses, Master of Business Leadership (MBL) report*. Johannesburg: School of Business Leadership, University of South Africa

Note: 100 business owners and managers interviewed in 2019 in the Gauteng province.

FIGURE 2: Challenges faced by small businesses in seeking financing. In the South African market, most of the small businesses are challenged with the need of collateral.

teams to spend considerably more time relaxing their model assumptions. However, even after adjusting the models for incomplete data, the application results are usually either subjective and possibly over-conservative or outright reject the application. It therefore makes sense that small business opaqueness is interpreted as an obstacle to confirming whether the business has the capacity to repay the loan (Beck, Demirguc-Kunt, & Peria, 2008; Booyens, 2011; Fatoki, 2014).

In South Africa, most small businesses are generally funded from personal savings (see Figure 1). This funding choice is probably because small businesses face various institutional funding hurdles in that they mainly do not have collateral and audited financial statements (Collateral followed by audited financial statements account for the two top challenges faced by small South African

businesses, see Figure 2.) If small businesses acknowledge their need for audited financial statements and collateral (to aid in building up a more robust financial record), then claiming financial information opacity as a growth problem is possibly incorrect. In fact, if the small business has not yet built up collateral, why would it be expected of the small business to have a long and healthy cash-flow history? It, therefore, does not make sense that financial institutions mainly consider the opacity of a small business, as it is a given attribute of any small business or start-up to have very little or no historical information because of small or no initial collateral. It is, after all, a small business that just started. If opacity were to carry the most weight in deciding which small business to fund and grow, then very few (or no) small businesses would receive funding, and economic growth would follow a very shallow path.

Financial institutions do appear to be mindful⁴ of small businesses (see, e.g. Dong & Men, 2014). As a strategic solution, some of the African market banks are strongly considering doing relationship lending (Berger, 2006; Torre et al., 2012). Relationship lending relies primarily on 'soft' information gathered by the loan officer through continuous, personalised, direct contacts with small businesses, their owners and managers and the local community in which they operate (NCR, 2011). The downsides to relationship lending are that it is a qualitative approach to lending and the gathering, analysing and interpreting of the information correctly are not easily repeatable, and can be very time consuming. Thus, relationship lending could increase the opportunity cost risk of the small business owner, as the market might have moved against the business owner when the funding results are released.

This paper does not adopt a specific definition for business growth. The aim is, therefore, not to introduce more complexity to the business growth theme. In fact, in this paper, the motivation for business growth is adopted as the 'aspiration to expand business' (Machado, 2016). The state of small businesses in South Africa points to factors other than business opacity that could hamper the growth of small businesses. Relationship lending is being introduced to assist businesses with the opacity problem. Even though the relationship lending was designed to assist small businesses, the small businesses' incomplete data problem can make the relationship lending process induce opportunity cost risk to the small business. There is a definite need to consider other aspects for growing small businesses. Next is considered an aspired to expand, growth metric, the HC, as a small business factor (other than opacity and relationship lending) to assist in improving small business growth.

Human capital

The external environment usually poses a greater deal of uncertainty to small businesses compared to large businesses

4. Dong and Men (2014) found not all small businesses are unfavourable to banks. In fact, they argued that small businesses in the manufacturing sector usually do not face as much bank financing obstacles as other sectors.

(Baporikar, Nambira, & Gomxos, 2016). In the emerging market sense, small businesses are considered as drivers of economic growth (Ayanda & Laraba, 2011). Even though small businesses are instrumental in boosting the economic growth by reducing unemployment, creating jobs and diversifying business operations, the failure of a number of small businesses to achieve business growth to advance economic growth has been a general concern globally over the years (Abor & Quartey, 2010; Ayanda & Laraba, 2011). In this section, we consider two business attributes: the expected return of the business to the market and the innovation potential impact on the HC.

The importance of HC in representing the entire wealth of an economy has long been part of financial economics, beginning with Roll's (1977) seminal work. Roll (1977) focussed on the disagreement that the market portfolio represents the entire wealth of an economy and claimed that aggregate wealth needs to be measured using every asset in the economy, including intangible assets, such as HC. Only more recently has HC emerged as a key factor for economic growth (Diebolt & Hippe, 2019).

Market return

Bottazzi (1996), Campbell (1993) and Lustig et al. (2013) empirically agreed that HC, is an essential component of the aggregate wealth of an economy. In fact, the ability of forecasting asset returns in an economy increases when the non-tradable HC variable is considered (Palacios-Huerta, 2003; Shiller, 1995). Even though HC is proxied by the growth rate of per capita labour income⁵ (Jagannathan, Kubota, & Takehara, 1998; Roy & Shijn, 2018), the impact of HC on the market return is not obvious or straightforward to understand. To obtain a theoretical appreciation of the dependency of the HC on the market return, it is imperative that the market portfolio model be considered.

The Fama and French (1993) linear factor model postulated the expected market return r on a portfolio:

$$r = R_f + \beta(R_m - R_f) + b_s SMB + b_v HML + \alpha \quad [\text{Eqn 1}]$$

with:

R_f the risk-free rate. Proxied by the 91 day South African treasury bill (Fatoki, 2014).

R_m is the market return. In South Africa, this is the return on the FTSE/JSE Top40 index.

SMB is the size effect. The historic excess returns of small over large cap stocks.

HML is the value effect. It is defined as the high (book-to-market) minus the low (book-to-market) excess return stocks.

The coefficients β , b_s , b_v and α define the market beta, the sensitivity of the portfolio return to the small versus big cap stock returns, the sensitivity of the portfolio return to the

5. The labour income is usually the quarterly salaries and wages component from the earnings report of the firms listed on major stock market indices. For example, in South Africa the major stock index will be the FTSE/JSE Top40 index.

value over growth stocks and the idiosyncratic (unexplained) risks not captured by the model, respectively.

Even though Equation [1] is a good first step into theoretically explaining the return variation, unfortunately it has not fared well empirically. In fact, the equation:

$$r = R_f + \beta(R_m - R_f) + b_sSMB + b_vHML + b_hLBR + \alpha \quad [\text{Eqn 2}]$$

With an extra term to Equation [1], the HC sensitivity, b_h to the labour growth, LBR , Equation [2] has had much better empirical success.

Moreover, Jagannathan et al. (1998) and Roy and Shijin (2018) argued that a model similar to that in Equation [2] better captures the expected portfolio returns. In fact, Jagannathan et al. (1998) tested an expression like Equation [2] on the Japanese financial market and economic data and found that the extra labour-growth factor explains the cross section of average returns, rather well. Roy and Shijin (2018) empirically tested, on the US data, the impact of including the labour-growth factor in a six factor model similar to Equation [2]. The labour-growth factor was found to be statistically significant in the model, and its inclusion resulted in empirically explaining the return variation with success.

There is therefore empirical recorded evidence that including HC (in terms of labour growth income) linearly (as in Equation [2]) into an expected market portfolio return estimator is essential to fully explaining the returns.

What could the HC market return dependency possibly mean for the growth of businesses? The business with significant labour growth expectations and aspirations to grow in the Machado (2016) sense have a much higher likelihood of contributing meaningfully towards the market returns. Moreover, businesses with solid labour growth expectations should possess good scalability plans. Conversely, business with good plans of scaling will have reasonably sound labour growth expectations and is in a much better position to contribute positively to the stability of the financial market returns.

Innovation production

Innovation plays an important role in firms' survival and is generally defined as the commercial application of new knowledge and implementation of ideas (McGuirk, Lenihan, & Hart, 2015). The production of innovation appears unmeasurable as new knowledge and ideas are not easily quantifiable. Nevertheless, innovation has been acknowledged as a key driver of business growth and productivity (Diebolt & Hippe, 2019; Ganotakis, 2012). Thus, considering the innovation production as a potential factor for growing a business is important.

McGuirk et al. (2015) reckoned that innovation production of a business I depends on HC (similar to equation [Equation 2]) and other three factors:

$$I = \alpha_1 C + \alpha_2 D + \alpha_3 R + \alpha_4 HC + \mu \quad [\text{Eqn 3}]$$

with:

α_1 the sensitivity to company specific attributes C that may affect their innovation,
 α_2 the sensitivity to employee specific demographics, D ,
 α_3 the sensitivity to the regional location of the company, R ,
 α_4 the sensitivity to the HC , and
 μ the idiosyncratic term capturing the innovation variance not explained by Equation 3.

Diebolt and Hippe (2019) confirmed the linear dependency of the innovation production on HC (Equation [3]) using European regional data in an ordinary least squares (OLS) regression. They found that HC is in fact a leading indicator of innovation development in business.

Are all businesses with more HC more innovative? Using Irish market data, McGuirk et al. (2015) tested the hypothesis that small businesses that employ managers with innovative HC are more likely to innovate. Significant deviations between company size and determinants of company-wide innovation were observed, contrary to the general claim (OECD, 2016) that as the firm matures, human resource and innovation strategies increase in importance. McGuirk et al. (2015) did, however, found evidence that HC is more valuable to smaller business (i.e. less than 50 employees).

Unconventionally, McGuirk et al. (2015) found that managers with higher levels of education do not necessarily contribute significantly to innovation production. This is in consonance with a German market study in which it was found that educated small business employees are not necessarily positively related to firms' probability to innovate (Schneider, Gunther, & Brandenburg, 2010). These findings echo the fact that know-how is a critical factor of innovation production. Skills are not just about a qualification but a way of problem solving and innovation.

What could this possibly mean for the growth of small businesses? The HC is vital for innovation production, which in turn drives company's financial returns and consequently investment returns. This is true even though an increase in HC in business does not necessarily scale linearly with more educated employees. However, smaller businesses (less than 50 employees – see the Appendix 1) do have a significant likelihood of producing more innovation with more innovative HC investment. If an investment in HC (via labour growth) can be said to help yield a positive financial market return, then an investment in the innovation productivity (via human capital education) can be said to help yield a more sustainable and stable positive financial return – especially in smaller businesses.

Conclusion and outlook

In this paper, we have outlined some of the pertinent problems underlying the growth of small businesses in Africa. The obstacles financial institutions faces in effectively

allocating funds to deserving small business are covered. The concept of HC, via the market portfolio return and the innovation, is introduced to provide a lens the government and banks can use to gauge whether a small business has a reasonable likelihood of improving returns and contributing meaningfully to economic growth.

Through the labour growth empirical research, HC was studied and found to improve the explanation of the market portfolio returns. The HC is globally discussed and confirmed to be essential for small business growth, as it may induce an increase in the number of innovative products, thus indirectly 'spurring economic growth through the channel of innovation' (Diebolt & Hippe, 2019). Thus the benefit to banks and the government to include the HC aspect in the small business funding decision is twofold. It will enable the funders to choose small businesses that have a higher likelihood of releasing innovative products. Secondly, the small businesses with excellent labour growth expectations can relatively safely be expected to contribute significantly to the market returns.

As Africa is currently undergoing many transformations to catch up with other regions of the world, there is a definite need in Africa for more innovative businesses that can improve productivity and sustainability and, at the same time, ensure growth and profitability (Ajilore & Fatunbi, 2018). The research presented in this article focuses on HC when deciding which business to fund and is a useful key to growing small businesses and move Africa forward in the pursuit of economic transformation.

The HC aspect is heuristically argued from the perspective of developed markets. The discussions and arguments that HC will be a key factor in a African business growth framework were therefore done purely based on inference. The inference is, however, valid to a large degree as African markets usually lag behind the developed world. Furthermore, HC is one key aspect discussed in this paper on a framework for growing small businesses in Africa.

Empirical evidence and discussions of the other key factors to a small business growth framework in Africa are a subject of forthcoming research.

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Competing interests

The authors declare that they have no financial or personal relationships that may have inappropriately influenced them in writing this article.

Authors' contributions

The research is part of a doctoral programme. A.D.J. as the corresponding author, was the research supervisor. T.T. was the research student and co-author. Both the authors contributed equally to this work.

Ethical considerations

This article followed all ethical standards for research without direct contact with human or animal subjects.

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Data availability

Data sharing is not applicable to this article as no new data were created or analysed in this study.

Disclaimer

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Appendix 1 starts on the next page→

Appendix 1

Small businesses definition

The definition of small businesses extends to geographical boundaries that fall under the control of the European Union (Berisha & Pula, 2015). The definition of micro-, medium and small enterprises has been standardised since May 2003 (European Commission, 2003).

Different countries and regions define small businesses in different ways. Small and medium-sized enterprises (SMEs) were first defined in April 1996 as a result of the inconsistent definitions at both the community and national level (European Commission, 1996). According to Gibson and Van der Vaart (2008), one study of the International Labor Organization identified over 50 definitions across 75 countries where the term small business is used ambiguously and inconsistently. Using quantitative measurable indicators, economists separate small businesses into different classes. In fact, the World Bank uses quantitative methods, such as number of employees, total assets in US dollar terms, and annual US dollar sales to define SMEs. Apparently, the quantitative definition is useful in the preparation of statistical data and to monitor the health of the sector over time (UNIDO OECD, 2004). Furthermore, the quantitative definition is useful to compare small businesses in different economies and regions.

In this research, the quantities defining the small businesses are given in Table 1-A1.

In this article the small businesses as highlighted in Table A1 are the 'Small' and 'Medium' classified businesses. The very small and micro businesses are usually characterised by being in the incubation phase, do not have a business plan, or some financial track record, and is generally biased towards family businesses. The very small and micro businesses were considered to introduce statistical biasness and were therefore not considered.

TABLE 1-A1: The small business quantities in context with smaller and larger business.

Classification of business	Number of employees	Annual turnover (million US dollars)	Total gross assets (million US dollars)
Medium	200	1	0.5
Small	50	0.5	0.2
Very small	20	0.1	0.05
Micro	5	0.01	0.005

Source: Adapted from *The South African Small Business Act* No. 102 of 1996, as amended in 2003

Note: An exchange rate of 13 South African Rands to the US dollar was used in the conversion.