A practical performance measurement framework for SMEs in a South African context

by

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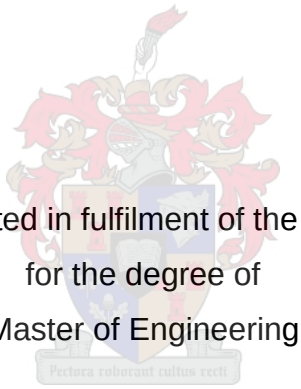

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Declaration

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Abstract

The key word in the title of this research study, is “practical”. A workable performance measurement framework (the business development scorecard, BDSC) is proposed for the owners and managers of small and medium-sized businesses (SMEs) in South Africa. The new framework lays the foundation for a novel approach to SME performance measurement in South Africa that needs further development. To the best knowledge of the researcher, no similar framework exists.

A secondary outcome of this research is the list of requirements for a SME performance measurement framework in South Africa.

SMEs play a very significant role in the South African economy. Sources differ, but contributions of 42 percent to gross domestic product and 50 percent to employment are commonly mentioned. A larger number of successful SMEs are therefore good for the economy – especially for South Africa with its current unemployment rate of 29 percent.

However, South African SMEs have a very high failure rate compared to most other countries worldwide. Measurement drives performance, and therefore the correct performance measurement system applied in a SME will increase its chances of success. A practical performance measurement framework for SMEs will promote better and wider use of performance measurement in SMEs with resulting economic benefits.

By studying the relevant SME- and performance measurement literature, as well as logical conclusions from the researcher, the requirements for a South African SME performance measurement framework were identified. Popular existing frameworks were critically evaluated against these requirements with the objective to identify a framework or components of frameworks that could be used in the design of the new framework.

A new framework, the business development scorecard (BDSC), is proposed that fits all the identified requirements. The BDSC uses principles from three different existing frameworks to adapt the Balanced Scorecard framework. It can be implemented incrementally with only the assistance of the SME’s accountant, which addresses the chronic resource scarcity of SMEs. The BDSC contains generic measures that drive survival of any SME as well as unique measures that drive the execution of a specific SME’s strategy. The framework further adapts the Balanced Scorecard by adding a fifth measurement perspective of “basic literacy” to the existing four measurement perspectives (financial, customer, processes, learning) of the Balanced Scorecard. The basic literacy perspective emphasises the South African context of the framework.

The validity and practical use of the BDSC were proven through semi-structured interviews with a sample of 20 potential users of the framework. Participants in the survey were requested to express their level of agreement with the key attributes of the BDSC. Survey results strongly supported the BDSC. The BDSC should make a practical contribution to a better success rate among South African SMEs.

Key words

SME performance measurement, balanced scorecard in SMEs, performance measurement framework, SME success rate, basic literacy, South African SMEs

Opsomming

Die sleutelwoord in die titel van hierdie navorsing is “prakties”. ‘n Werkbare raamwerk vir prestasiemeting, die *business development scorecard (BDSC)*, word voorgestel vir die gebruik van klein- en medium-grootte ondernemings (KMO’s) in Suid-Afrika. Die nuwe raamwerk lê ‘n fondasie vir ‘n nuwe benadering tot prestasiemeting binne KMO’s in SA wat verder ontwikkel kan word. Na die beste wete van die navorser bestaan daar nie tans ‘n soortgelyke raamwerk nie.

‘n Sekondere resultaat van hierdie navorsing is die lys van vereistes vir ‘n prestasiemeting-raamwerk vir KMO’s in SA.

KMO’s speel ‘n belangrike rol in die SA ekonomie. Bronne verskil, maar bydraes van 42 persent tot die bruto nasionale produk en 50 persent tot indiensneming, word algemeen genoem. ’n Groter aantal suksesvolle KMO’s is daarom baie goed vir die ekonomie – veral in SA met ‘n huidige amptelike werkloosheidskoers van 29 persent.

SA KMO’s het egter ‘n baie hoë mislukkingskoers in vergelyking met die meeste lande ter wêreld. Meting is ‘n aandrywer van prestasie, en daarom sal die aanwending van die gepaste prestasiemeting-stelsel in ‘n KMO sy kanse op sukses verhoog. ‘n Werkbare prestasiemeting-raamwerk vir gebruik deur KMO’s sal lei tot die meer algemene gebruik van prestasiemeting-stelsels in KMO’s met die gevolglike ekonomiese voordele.

Deur middel van die bestudering van toepaslike KMO- en prestasiemeting literatuur, tesame met logiese gevolgtrekkings deur die navorser, is die vereistes waaraan die voorgenome raamwerk moet voldoen, identifiseer. Gewilde bestaande prestasiemeting-raamwerke is krities evalueer teenoor hierdie vereistes met die doel om ‘n raamwerk of gedeeltes van raamwerke te identifiseer wat gebruik kan word in die ontwikkeling van die nuwe voorgestelde raamwerk.

‘n Nuwe raamwerk, die *business development scorecard (BDSC)*, word voorgestel wat aan al die geïdentifiseerde vereistes voldoen. Die BDSC gebruik beginsels uit drie verskillende bestaande raamwerke om die *Balanced Scorecard* (BSC) prestasiemeting-raamwerk aan te pas. Die BDSC kan in fases implimenteer word met slegs die hulp van die KMO se rekenmeester vir Fase 1, indien hulp nodig sou wees. Hierdie eienskap addresseer die kroniese tekort aan hulpbronne in KMO’s. Die BDSC bestaan uit ‘n stel generiese metings (Fase 1) wat oorlewing van enige KMO aandryf, asook ‘n stel unieke strategiese metings (Fase 2) wat die uitvoering van ‘n spesifieke KMO se strategie aandryf. Die BDSC pas die BSC ook verder aan deur ‘n vyfde dimensie vir meting, “basiese geletterdheid”, by die bestaande vier dimensies (finansies, kliënte, interne prosesse, ontwikkeling) van die BSC te voeg. Die basiese geletterdheidsdimensie beklemtoon die SA konteks van die raamwerk.

Die geldigheid en werkbaarheid van die BDSC is bewys deur middel van ‘n opname onder 20 potensiele gebruikers van die raamwerk. Deelnemers is gevra om die mate waartoe hulle saamstem met sleutelaspekte van die BDSC op ‘n 5-punt Likert skaal aan te toon. Die resultate van die opname was baie sterk ten gunste van die BDSC. Die BDSC behoort ‘n werkbare bydrae te maak tot ‘n groter sukseskoers onder KMO’s in SA.

Sleutelwoorde

Prestasiemeting, kleinsakeondernemings, klein- tot mediumgrootte ondernemings, prestasiemeting-raamwerk, sukseskoers van kleinsakeondernemings, basiese geletterdheid, Suid-Afrikaanse kleinsakeondernemings

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To all SME owners, for your contribution to our economy. I hope this research will help you to have a profitable business that will sustain your desired standard and quality of living.

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List of acronyms and abbreviations

AIDC-EC	Automotive Industry Development Centre, Eastern Cape
BBBEE	broad-based black economic empowerment
BDSC	business development scorecard
BER	Bureau of Economic Research
BSC	Balanced Scorecard
CSF	critical success factor
CSI	Continuous Strategic Improvement (process)
DMP	Dynamic Multi-dimensional Performance (framework)
DBE-RSA	Department of Basic Education: Republic of South Africa
DTI-RSA	Departement of Trade and Industry
EFQM	European Federation for Quality Management (framework)
EPWP	Expanded Public Works Programme
FPM	Flexible Performance Measurement system
GDP	gross domestic product
GEM	Global Entrepreneurship Monitor
MBNQA	Malcolm Baldridge National Quality Awards
OECD	Organization for Economic Co-operation and Development
OIQ	objective identifying question
PESTLE	political, economic, social, technological, legal and environmental factors
PM	performance measurement
PMF	performance measurement framework
PMS	performance measurement system
ROI	return on investment
ROIC	return on invested capital
SA	South Africa(n)
SAICA	South African Institute of Chartered Accountants
SBI	Small Business Institute
SBP	Small Business Pyramid
SMART	strategic measurement analysis and reporting technique (pyramid)
SME	small and medium enterprise
SMEs	small and medium enterprises
SOMIMAD	Strategy-Objectives-Mapping-Initiatives-Measures-Alignment-Documentation
SPMS	strategic performance measurement system
TQM	Total Quality Management
WEF	World Education Forum

CHAPTER 1:
INTRODUCTION

1.1. INTRODUCTION

The aim with this chapter is to orientate the reader with the background of and case for this research study. Much has been written about small and medium enterprises' important role in the economy (World Bank, 2011), and their extremely high failure rate (DTI-RSA, 2008), (Fatoki, 2014). The importance of measurement in a business as critical enabler of performance, has also been established (Harbour, 2009). However, internationally, performance measurement in small and medium enterprises (SMEs) has been hampered by a lack of research about performance measurement system (PMS) solutions in SMEs (Carlyle, 2013). Literature and research on PMSs for SMEs in a South African (SA) context is particularly scarce. Development of a PMS framework for SMEs in a South African business environment therefore presents a potential fruitful research opportunity.

1.2. THE ROLE OF SMES IN THE SA ECONOMY

1.2.1. Definition of an SME

The Organization for Economic Co-operation and Development (OECD, 2019), defines a SME as having fewer than 250 employees, while the United States uses 500 as the maximum number of employees. In South Africa in general a business must have fewer than 200 employees to qualify as an SME.

The National Small Business Amendment Act (26 of 2003) gives a very specific definition (DTI-RSA, 2008) of SA businesses according to five categories, namely: industrial sector, size of class, number of paid employees, turnover and asset value (excluding fixed property). Table 1.1 shows a summary of this definition.

Table 1.1: Summarised definition of SMEs in South Africa according to maximum: number of permamanent employees, turnover and gross assets

Enterprise size	Number of employees	Maximum turnover p.a. in ZAR (Industry dependent)	Maximum gross assets in ZAR excl. fixed property (Industry dependent)
Medium	Fewer than 200 (ex Agriculture 100)	R5m to R64m	R3m to R23m
Small	Fewer than 50	R3m to R32m	R1m to R6m

Source: Summary compiled by researcher, adapted from DTI-RSA, 2008.

1.2.2. Importance of SMEs to the SA economy

1.2.2.1. Contribution to GDP

Sources differ somewhat in the exact number, but all conclude that SMEs worldwide contribute significantly towards the gross domestic product (GDP) of their countries (Watts & McNair-Connolly, 2012; World Bank, 2011). Table 1.2 below shows various countries' SME statistics in this regard (Mabhungu, 2017).

A report by the Bureau for Economic Research (BER) (2016) showed that total SME contribution to GDP in South Africa has grown steadily from 33 percent in 2010 to 42 percent in 2015. More recent preliminary findings, however, indicated that SMEs' contribution to GDP is further weakening (Liedtke, 2019), which is in line with recent findings about employemt in SMEs (The Small Business Institute, 2018).

1.2.2.2. Biggest contributor to growth of employment and new jobs

SMEs are where economic growth will come from. Internationally promoting SMEs is seen as a good strategy, or even the best solution, to grow economic development (Abor & Quartey, 2010; Kongolo, 2010; World Bank, 2011). SMEs are the major growing force behind the fast-growing economy of China (Kongolo, 2010). Development of SMEs is seen by experts as the way to achieve socio-economic goals, such as poverty reduction (Abor & Quartey, 2010; Kongolo, 2010; World Bank, 2011).

Table 1.2: Contribution of SMEs to the economy of selected countries

Country	% of all businesses	GDP	Employment	Source date
China	99.3%	60.0%	80%	2015
UK	99.9%	47.0%	60%	2015
Australia	96.0%	33.1%	63%	2011
Italy	99.9%	68.1%	81%	2016
Ireland	99.7%	46.2%	68%	2017
Tanzania	95.0%	33.0%	40%	2016
Kenya	90.0%	18.0%	80%	2014
South Africa	90.0%	42.0%	60%	2010
Ghana	92.0%	70.0%	85%	2010; 2011

Source: Adapted by researcher from Mabhungu, 2017.

Although researchers differ in the exact numbers, they all conclude that SMEs are the major job creator and employer in most countries (BER, 2016). Table 1.2 shows that SMEs are an important contributor to especially employment in both developed and undeveloped countries (Mabhungu, 2017). In South Africa, SMEs employed almost 60 percent of all workers according to 1999 and 2002 studies (Abor & Quartey, 2010; Kongolo, 2010). DTI reports indicate that in 2004 SMEs provided

56 percent of all employment (DTI-RSA, 2008). In addition, more than 51 percent of net new jobs created in SA during the period 2004 to 2007 came from the SME sector (Kongolo, 2010). The findings of a 2018 preliminary study by the Small Business Institute (SBI), however, had very contrasting findings: Their data showed that, although constituting 98.5 percent of formal firms in SA, the SME sector only contributed 28 percent to employment (The Small Business Institute, 2018). This makes SA an outlier compared to the international norm of 60 to 70 percent. Even being only preliminary findings, it shows a marked deterioration of the health of the SME sector in SA, and calls for urgent action to reverse this trend.

Job creation is especially important in a country like South Africa with official unemployment rates rising from 24.9 percent in 2010 (World Bank, 2011) to a staggering 29 percent in July 2019 (Statistics SA, 2019) (Figure 1.1). The 2014 Global Entrepreneurship Monitor (GEM) report showed that the SA unemployment rate is 3.3 times higher than the average for the Sub-Saharan Africa region (Herrington, Kew & Kew, 2014).The importance of the SME sector in SA as job creator is compounded by two characteristics of this sector in SA:

- It is more labour-intensive than big business (Abor & Quartey, 2010; Kongolo, 2010; SBP Business Environment Specialists, 2015);
- It is the biggest employer of unskilled labour, of which SA has abundant resources (Kongolo, 2010; SBP Business Environment Specialists, 2015);

In conclusion, the GEM report (Herrington et al., 2014, p.19) stated that the focus has now moved away from large organisations and government, towards the SME sector to create jobs. And that:

> *South Africans must move away from the concept of seeking employment to one of creating employment for oneself and others.*

A higher success rate among SMEs is therefore of high importance and very relevant to current SA economic conditions.

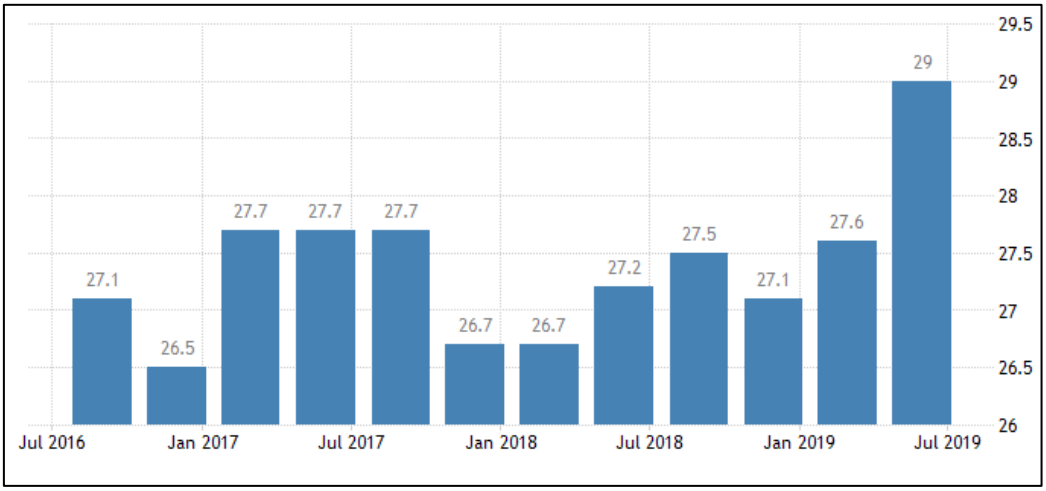


Figure 1.1: Official SA unemployment rate: 2016 to 2019

Source: Statistics SA, 2019.

1.2.3. Problem with SMEs: High failure rate

The reputation of SMEs as potential engine of growth is somewhat tainted by the high failure rate of businesses in this sector (Fatoki, 2014). Estimates vary but all claim a very high failure rate. It is a serious problem worldwide, not only in South Africa, although SA has one of the highest failure rates in the world (Olawale & Garwe, 2010). Olawale and Garwe (2010) quoted research that shows that 75 percent of new businesses in SA will not survive beyond 3.5 years.

1.2.4. Conclusion about SMEs role in SA

The SME sector is an important contributor to the SA economy in several ways. It is seen as the main job creator of the future and potential engine for economic growth. The importance is amplified by the relative high labour intensity and absorption of lower skilled workers of the SME sector (Kongolo, 2010). Allthough recent reports (The Small Business Institute, 2018) show an alarming deterioration in the economic contribution of SMEs, it is rather an urgent call for action to increase the success rate of SA SMEs.

1.3. THE ROLE OF PERFORMANCE MEASUREMENT IN BUSINESS

1.3.1. The importance of performance measurement

It is a general conclusion among management experts that performance measurement is an essential tool for businesses for controlling and achieving its objectives (Zeglat, 2012). Quantitatively, measuring performance helps to drive desired results in an organisation, as well as to understand what these performance drivers are (Harbour, 2009).

Performance measurement pervades any organisation today, be it a for-profit or non-profit organisation. Performance measurement is one of the cornerstones of management and crucial for any business or organisation (Harbour, 2009). According to Dalrymple (2004), "…measurement of performance is the first step towards management of performance".

Harbour (2009) stated that if you do not want to manage a business by opinion but rather by hard facts and concrete evidence, you need a business performance measurement system. He claimed that any process or system you want to improve needs to be measured, and that you cannot understand, manage or improve what you cannot measure (Harbour, 2009).

This is true for any business improvement methodology as well, such as: lean, Six Sigma, Total Quality Management (TQM), Theory of Constraints. These methodologies rely on quantitative performance measures and ongoing performance measurement to function. Performance measurement is therefore a critical enabling factor in any business improvement methodology (Harbour, 2009).

The value of benchmarking and external comparisons is widely understood, but impossible without performance measurement (Neely, 2007).

Some common and well-known quotes about measurement drive home its importance. The researcher is not sure about the origin of most of them:

- What you measure is what you get.
- Measurement gets things done.
- What gets measured, gets managed.
- You cannot improve what you don't measure.
- You get what you inspect – not what you expect.
- Measurement drives performance.

Whichever way you state it – the fact is that performance measurement is one of the most powerful management and business tools. A well-designed PMS in a business can literally mean the difference between success and failure (Spitzer, 2007). Businesses with proper performance measurement systems do better than those without (Niven, 2014). Having a PMS that effectively measures and monitors performance, is a necessary condition for a business to achieve high performance standards (Cocca & Alberti, 2010). For these reasons, performance measurement presents a huge opportunity for SMEs to improve their performance and thereby their chances of success (Garengo et al., 2005; Maduekwe & Kamala, 2016; Sorooshian, Aziz, Ahmad, Jubidin & Mustapha, 2016; Taticchi, Cagnazzo, & Botarelli, 2008;).

As is shown in Chapter 4, one of the main causes of failure in SMEs, is poor managerial skills. Researchers in the PMS field have indicated the key role PMS can have in supporting managerial growth and development and efficiency in SMEs (Ates, Garengo, Cocca, & Bititci, 2013; Garengo & Sharma, 2014).

SMEs are characterised by an informal approach to managing and controlling its activities, which becomes becomes much more difficult as the firm grows (Fatoki, 2014), increasing its risk of failure. An effective PMS can formalise and improve the management processes and clarify the strategic objectives (Jamil & Mohamed, 2011), which will result in a greater success rate for SMEs, that will ultimately create more jobs.

1.3.2. The problem with performance measurement in SMEs

A problem in the PMS field in general, is that it is very wide and fragmented, with many different viewpoints held and frameworks in use. There is no universal body of knowledge available for performance measurement systems (Ates et al., 2013, Franco-Santos, Kennerly, Micheli, Martinez, Mason, Marr, Gray, & Neely, 2007). Neely (2007) and Ates et al. (2013) noted that a 'general theory' of performance measurement had not yet emerged.

There are literally thousands of authors, researchers, scholars and experts in this field over varying disciplines. Neely (2007) claimed that a massive amount of research is being done in the PMS field by people from different disciplines and backgrounds, and all doing so independently. The net result is much duplication in effort as well as unmanageable diversity in the PMS field (Carlyle, 2013; Franco-Santos et al., 2007; Taticchi, Tonelli, & Cagnazzo, 2010). Ates et al (2013)

Furthermore, the literature of PMS is generally quite complex (Zeglat, 2012). If you are not a professional in this field, or do not have such assistance, it is difficult to obtain the necessary information that is required to design an effective PMS for an organisation (Fernandes, Raja & Whalley, 2006; Neely, 2007). The researcher can confirm this statement from own experience.

In the case of SMEs, the situation is even worse. Whereas a huge amount of research has been done worldwide on PMSs for large organisations, especially over the past 25 years, very little research was done and solutions provided in this field of study for SMEs (Bäuml, 2014; Carlyle, 2013; Hudson-Smith & Smith, 2006; Neely, Gregory, & Platts, 2005; Taticchi, Asfalti, & Sole, 2010; Taticchi et al., 2008). As shown in Chapter 4, SMEs differ a great deal from big businesses – and so do their PMS requirements.

Competent consultants in the PMS field are also scarce and expensive (Fernandes et al., 2006, 2006). Even training courses of good quality in the PMS field are scarce in SA and very costly for SMEs (PMI Africa, 2019).

To bridge all these afore-mentioned problems regarding PMS in SMEs, a suitable performance measurement framework (PMF) specifically for SMEs, could facilitate PMS implementation in SMEs.

There are few PM frameworks specifically catering for the unique requirements of SMEs, but unfortunately none that are widely used (Brem, Kreusel, & Neusser, 2008; Carlyle, 2013; (Wasniewski, 2017). To the best of the researcher's knowledge, to date no PMS framework has been developed for SMEs in South Africa specifically, as confirmed by other researchers (Mabhungu, 2017; Maduekwe & Kamala, 2016).

1.3.3. Conclusion about PM role in SMEs

Performance measurement systems can drive success in SMEs. There is however a lack of knowledge and tools to facilitate and support the implementation of PMSs in SMEs.

1.4. PROBLEM STATEMENT

There is a real need for more SMEs in SA to use contemporary performance measurement systems that will drive a higher SME success rate and therefore higher employment. For this need to be fulfilled, a PMS design and implementation framework that is of practical use to SMEs in SA, is required. However, currently there is no such performance measurement framework available, to the best of the researcher's knowledge.

1.5. RESEARCH SCOPE AND OBJECTIVE

1.5.1. Objectives

It is against this background, that the following objectives for this research study were set:

- The main objective is developing a practical framework, from existing literature and own experience, specifically suited to enable SME owners/managers in SA to implement a PMS for their businesses. By “practical” the researcher means that the framework will be usable in practice by most SMEs and not only an academic exercise.
- A secondary objective that precedes the main objective, is identifying the actual requirements/attributes of a PMS for South African SMEs.

1.5.2. Scope

Performance measurement systems comprise many different elements. This study focusses on:

(a). Performance measurement in for-profit organisations – specifically SMEs in SA.
(b). Identifying the critical areas to measure
(c). Suggesting typical measures that will support evidence of the degree of performance in the critical areas identified (b).

The study does not cover the supporting infrastructure of data collection, display, software, etc.

1.6. RESEARCH METHODOLOGY

A comprehensive literature study and validation through a survey, formed the basis of this research. The researcher also drew on his own experience as SME owner of 30 years. Figure 1.2 Illustrates the research methodology that was followed to reach the research objectives. The literature study covered four (4) main areas, shown in the blue circles, i.e.:

- Performance measurement system principles;
- Existing performance measurement frameworks;
- Characteristics of SMEs; and
- The South African business environment perspective.

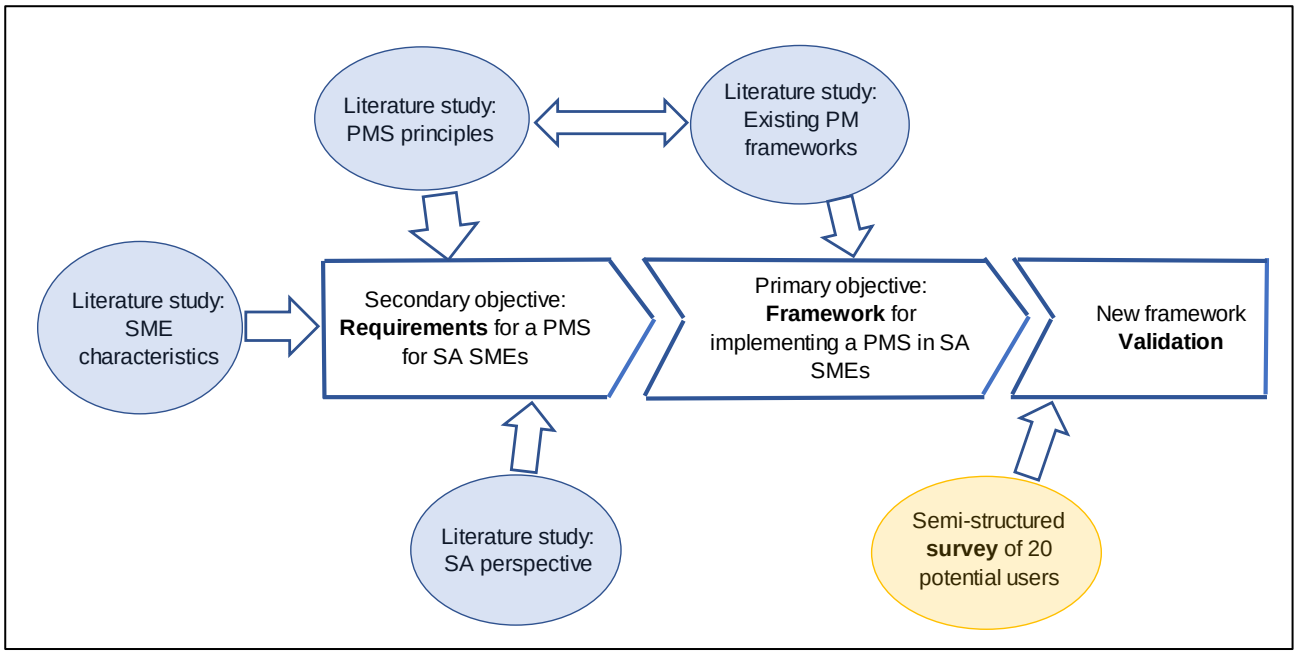


Figure 1.2: Illustration of research methodology

Source: Researcher's compilation.

Literature sources were selected by searching the internet and Stellenbosch University electronic library. The criteria for inclusion of sources are discussed below.

The diversity of PMS literature and the large number of different authors contributing to the PMS field was noted in Section 1.3.2. To ensure that authoritive sources were included in the literature study pertaining to PMS principles and frameworks, findings from research by Taticchi, Tonelli and Cagnazzo (2010) were used. These researchers analysed 6 618 papers mentioning "performance measurement", and identified the four most-cited reseachers as: R.S. Kaplan; A. Charnes; A. Neely; and R. Banker.

A narrower search by the researcher containing the term "performance measurement frameworks" yielded the most relevant sources for the purposes of this study, from two of these authors, i.e. Kaplan and Neely, which were included. This finding also correlates with research by Carlyle (2013), that Robert Kaplan and David Norton were the most cited authors, and that Andy Neely was the producer of the most papers in the PM field.

Of all the other works analysed by Taticchi, Asfalti and Sole (2010), only ten were cited more than 30 times – which shows that there are few recognised experts in the performance measurement field. The relative scarcity of research on PM in SMEs specifically was also noted in Section 1.3.2. A search on the terms "performance measurement in SMEs" and even narrower to include the word "framework", identified several relevant papers from other authors which the researcher found to be referred to many times. Table 1.3 below is a sample of some PM authors cited in this thesis with a description of their backgrounds, showing an acceptable degree of authority, in the researcher's opinion.

Table 1.3: Some of the PM authors which works are cited in this thesis

Author (*among top 4 cited)	**Position**	**Academic institution**	**Field of interest**
Ates, A.	associate professor	Strathclyde Business School, UK	Strategy , innovation
Biazzo, S.	professor	University of Padova, Italy	Industrial Engineering
Bitticci, U.	professor	Heriot Watt Uniiversity, Edinburgh, UK	Business Performance
Bourne, M.	Professor	Cranfield University, UK	Business performance
Brem, A.	Professor	Friedrich-Alexander-University- Nurnberg Germany	Technology management
Garengo, P.	professor	University of Padova, Italy	Industrial Engineering
Hudson-Smith, M.	assistant head of department	University of West England, Bristol, UK	Strategy & operations management
Jarvis, R.	professor	Brunel University, London, UK	Accounting
*Kaplan, R.S.	emiritus professor	Harvard Business School	management accounting (co-developer of ABC and BSC)
Mazzarol, T.	professor	University of Western Australia	SME management, entrepreneurship, innovation
*Neely, A.	professor	University of Cambridge, UK	performance measurement and management
Tattichi, P.	director	Imperial College Business School, UK	global online MBA programme

Source: Researcher's compilation.

A fact that the researcher also took into account, is the general agreement among authors that there currently still exists no widely-accepted PMF for SMEs. The researcher's view is therefore that it is sufficient for the objective of this study to include only some authoritative and frequently-cited sources in order to obtain a sufficient understanding of PMS principles and frameworks to enable the development of a PMF.

To obtain information on the SA context for this study, the following authoritive sources among others, were included:

- Bureau for Economic Research (BER);
- Departement of Trade and Industry (DTI-RSA);
- Statistics SA;
- Global Entrepreneurship Monitor (GEM); and
- Organization for Economic Co-operation and Development (OECD).

Several sources with a non-academic background but with a relevant practical perspective on the subject, such as small business consultants, were included to gain better insight into SME characteristics, reasons for failure and success.

The researcher also ensured relevance of sources used, by including mostly works since 2005. In total, more than 100 sources were used in this study.

The design procedure for the proposed framework entailed the following steps (refer Figure 1.3 and Table 1.4):

- Identifying the design requirements of the framework from literature.
- Analysing existing frameworks against requirements as source of input for a newly-designed framework.
- Proposing a solution through logical conclusion from literature and own experience.
- Validating the proposed solution through a survey of potential users.

Validation of the proposed framework was done through personal semi-structured interviews with potential users. A sample of 20 participants, who are either SME owners or accountants, was chosen. Participants were selected according to the following criteria:

(a). All participants: Based in the Southern Cape or Cape Peninsula, because of logistical and cost constraints.

(b). SME participants:

- Minimum of two (2) participants from each of the five (5) industry sectors in which most SMEs operate.
- A proportionate spread of SME participants according to size.
- Minimum five (5) years' experience as owner/co-owner of a SME.
- Selection was randomly chosen from local business directories in the geographical area.

(c). Accountant participants:

- More than 50 percent of their clients must be SMEs.
- Minimum five (5) years' experience as practicing accountant.
- Selection was random from the South African Institute of Chartered Accountants (SAICA) – Southern Region membership list.
- Participation was in personal capacity as accountant – not representing the practice were they worked.

The final sample consisted of eight (8) accountants and twelve (12) SME owners. The interviews were in the form of a questionnaire. Participants were asked to express their level of agreement with elements of the proposed framework, using a 5-point Likert scale. The elements were statements about general business problems openly discussed in the public domain. The opinions expressed were required to be participants' personal views based on their work experience. The identity of participants was not relevant to the study and was not to be revealed.

Full details of the questionnaire and composition of sample participants are shown in Addendum A and Addendum B.

1.7. THESIS ORGANISATION AND CHAPTER OUTLINE

Chapter 1 sets the background of the thesis by explaining the need for the study, the problem statement, and methodology to address the problem.

Chapter 2 consists of a literature study of business performance measurement principles in general. It includes definitions of key relevant aspects of business performance measurement as well as the requirements for a “good” PMS in general.

Chapter 3 continues the literature study with a detailed description of the design and implementation process of a PMS. This degree of detail was required (1) to demonstrate that implementation is very resource intensive and (2) to equip the researcher for the development of the new proposed framework in Chapter 6 of this thesis.

Chapter 4 is part literature study and part application. The chapter looks at SMEs in general and also specifically in SA. SMEs’ characteristics versus those of big businesses, the economic environment in which they operate, performance measurement habits, problems faced and causes of failure, are studied. In the latter part of Chapter 4, the knowledge gained from literature so far is applied to establish the ideal requirements for a SME PMS framework in SA, which is the secondary objective of this thesis. Some logical conclusions by the researcher were required to achieve this objective because of a gap in the existing literature pertaining to PMS requirements for SMEs

Chapter 5 is part literature study and part analysis and conclusions by the researcher. Popular existing PMS frameworks are analysed and compared with the ideal requirements established in Chapter 4. The main objective of this chapter was to identify an existing framework, or components of frameworks, that can be successfully adapted or used as input to a new framework that does fit all the requirements.

In Chapter 6 the new proposed framework (the BDSC) is developed, drawing on the literature study from aforegoing chapters as well as logical conclusions by the researcher.

In Chapter 7 the new framework is discussed and compared to literature and practice. Validation for practical usability is then done through a survey amongst a sample of potential users. One application of the new framework in practice (by the researcher) is also discussed.

Finally, in Chapter 8 the contributions and limitations of this research are highlighted, as well as possible fruitfull areas of future research, flowing from the findings of this research study.

Table 1.4 below shows the story/argument of the thesis and relation to the sequential list of chapters.

Table 1.4: Thesis storyline and chapter orientation

Thesis chapters and outline		Thesis story and chapter orientation	
1	Introduction	1	Show that there is a need for a simple, practical PMS framework for SMEs in SA
2	PMS principles and requirements	2, 3, 4	Define the design requirements for such a framework
3	PMS design and implementation		
4	SMEs and PMS	4, 5	Identify principles and solutions from literature and existing frameworks as input to design a new framework
5	Comparison of existing frameworks	2, 3, 4, 5, 6	Design a PMS framework that meets all the necessary requirements
6	BDSC – new framework		
7	Discussion and validation of the BDSC	7	Validate new framework through input of sample of 20 potential users
8	Conclusion, contribution and future research	8	Contribution of this research and potential areas of future research arising

Literature study Application

Source: Researcher's compilation.

CHAPTER 2:
PMS PRINCIPLES, DEFINITIONS AND REQUIREMENTS

This chapter describes the principles, definition and evolution of performance measurement systems (PMS), and particularly business PMS. The terminology, attributes, elements and design requirements for PMSs are explained. The chapter culminates in identifying the characteristics and requirements of a "good" PMS in general. (Specific requirements of a PMS for SMEs in SA are addressed in Chapter 4).

2.1. DEFINITION OF PERFORMANCE MEASUREMENT

A study by Franco-Santos et al. (2007) attempted to establish a definition of a business performance measurement system. They found that there was no such definition – at least not a universally-accepted one. A later study by Ates et al. (2013) analysed definitions of performance management and basically came to the same conclusion. Barr (2014) noted that there are no universally-accepted definitions for any of the different terms used in the performance measurement field.

Management researchers from diverse backgrounds and over the entire spectrum of business disciplines are contributing to the field of business performance (Ates et al., 2013, Franco-Santos et al., 2007; Neely, 2007) and performance management. This has led to numerous definitions of performance measurement/management – with "each definition providing a different perspective on the concept" (Neely, 2007).

Examples that illustrate some definitions of business performance measurement from different perspectives are (Franco-Santos et al., 2007):

- Operations perspective: The set of measures that is used to quantify both the efficiency and effectiveness of past actions (i.e. the very popular definition of Neely (2007))
- Strategic perspective: The measures that are cascaded down the layers of the organisation that will drive the execution of the business strategy, as well as monitor the content and validity of the strategy.
- Management accounting perspective: The set of measures that is used as a tool for management planning and budgeting.

Definitions of performance measurement (or management) are therefore context specific and not absolute. The definition depends on the background of the user and the purpose of the system.

There is also no clear line between performance measurement and management. According to Lebas (Ates et al., 2013), performance management precedes and follows performance measurement, and performance management is supported by performance measurement. Lebas then claimed that "any attempt at separating the two processes will be in vain".

The relation between performance measurement and management can be explained as follows (Ates et al., 2013):

- Performance management is the process by which a business manages its performance in line with its objectives and goals.
- At the heart of the performance management process is an information system that enables closed loop feedback for performance control.
- This information system is the performance measurement system.

This thesis focusses on this *information system* (the performance measurement system) and specifically for SMEs.

A better understanding of what the term 'performance measurement system' means can be obtained by analysing the meaning of the following key words:

- According to the Baldridge criteria, "'Performance' refers to output results and their outcomes obtained from processes, products, and services that permit evaluation and comparison relative to goals, standards, past results, and other organisations" (BPIR, 2019). It is therefore clear that 'performance' implies that there must be a goal/objective in a PMS associated with each measure against which actual achievement is compared (Harbour, 2009).
- 'Measurement' refers to numerical information that quantifies input, output, and performance dimensions of processes, products, services, and the overall organisation (BPIR, 2019).
- 'A measurement (metric)' is "an observation that results in information (reduction of uncertainty) about a quantity" (Hubbard, 2010). Barr (2014) defined a measurement as a "comparison that provides objective evidence of the degree to which a performance result is occurring over time".
- 'System' in the context of performance measurement refers to a set of measures (metrics) (Neely, 2007; Zeglat, 2012).

Neely (2007) and Zeglat (2012) both offer detailed definitions:

> *A performance measurement system provides a tool to clarify how well a business is doing in terms of processes, actions and strategies, in order to achieve its objectives.*

Neely's definition is cited by many scholars: "Performance measurement is the efficiency and effectiveness of past actions…" (Neely, 2007). A measure is a metric used to quantify the efficiency and/or effectiveness of an action. A performance measurement system is the set of metrics used to quantify both the efficiency and effectiveness of actions.

In conclusion, the researcher proposes the following simple general definition for a business PMS as:

> *The set of measures that quantifies how well the business is doing in relation to its stated objectives.*

2.2. WHAT IS SEEN AS PERFORMANCE IN A BUSINESS?

The general view among authors (Kaplan & Norton, 2008) of what exactly is seen as 'performance' in a business, can be summarised by the view of Michael Porter (Magretta, 2012) that "the fundamental goal for a business is long-term return on invested capital" (ROIC).

Achieving the interest of all stakeholders (not only those of the shareholders) has become important too (Neely, 2007; Striteska & Spickova, 2012). Examples are the interests of environmental groups and local communities. In the researcher's view, these interests, although very important, will always be subservient to those of the shareholders – otherwise there will be no business.

Meyer (2002) mentioned future cash flows and long-term viability as performance for a business without stating the size. This view leans towards the success or performance definition of SMEs. Smaller businesses in general regard survival and positive cash flow as their measure of success – more important than profitability (Collis & Jarvis, 2002; Gray, Saunders, & Goregaokar, 2012; Mazzarol, 2010; Raymond, Marchand, St-Pierre, & Cadieux, 2011).

The vision of success for SMEs that the researcher proposes, is defined more closely in Chapter 4.

2.3. KEY CONCEPTS IN PERFORMANCE MEASUREMENT

It is necessary to clarify some of the general principles and terminology in the PMS field applicable to this study.

2.3.1. PM frameworks

A framework guides you in developing a PMS: PM frameworks help an organisation to identify an appropriate set of measures to assess their performance (Kennerly & Neely, 2002).

"Companies are what they measure!" (Franceschini, et al., 2007), so it is very important to measure the correct things – otherwise the company will be transformed into an undesirable state. The important principle here, is that measurement has consequences (Rohm, Wilsey, Perry, & Montgomery, 2013).

Analysing all the factors and inter-relationships among objectives that influence a business's performance is a complex and resource-intensive process. (Raymond et al., 2011). Simply put, it is a complex task to figure out what the best metrics are for any organisation. PM frameworks simplify this process. Some examples of popular frameworks are: the Balanced Scorecard, Performane Prism and European Federation for Quality Management (EFQM) (Neely, 2007; Tatiicchi et al., 2010). Frameworks differ in their management perspective, e.g. the Balanced Scorecard is strongly strategically orientated, while the Performance Prism is stakeholder orientated (Neely, 2007; Raymond et al., 2011).

2.3.2. Measurement categories/perspectives/dimensions of a PMS

Performance measurement systems that contain more than only financial measures, were one of the major developments in PM since 1980 (Carlyle, 2013; Garengo et al., 2005; Neely, 2007). Authors refer to different perspectives or dimensions of measurement. In PMS terms, 'perspective' refers to a category of performance measures. The most common perspectives are those of the Balanced Scorecard (BSC) (Kaplan & Norton, 1996).

(a). Financial;

(b). Customer;

(c). Internal processes;

(d). Employee learning and Growth.

The reason for this is that the BSC is the most widely-used performance measurement framework worldwide (Hudson, Smart, & Bourne, 2001; Neely, 2007; Niven, 2014; Rompho, 2011).

Hudson, Smart and Bourne (2001) identified six (6) dimensions, which are essentially the same as those of Kaplan and Norton (1992), but dividing internal processes into three (3) sub-process categories (quality, flexibility and time). Maltz, Shenhar and Reilly (2003) added 'future' as perspective.

Other perspectives that became more prominent after 2000, are 'other stakeholders' than the owners, such as employees or suppliers, sustainability and the environment (Garengo, Bititci, & Biazzo, 2005; Neely, 2007). However, all researchers affirmed that these dimensions/perspectives are not prescriptive or absolute; they can be changed depending on specific needs.

2.3.3. Balanced system

A balanced PMS will contain all the dimensions or perspectives of performance required for a specific system – not only financial. (Hudson, Smart & Bourne, 2001; Kaplan & Norton, 1992). Some researchers make a further division between 'vertical balance' and 'horizontal balance' (Garengo & Biazzo, 2012).

'Vertical balance' refers to balance between perspectives, as is most commonly meant when referring to the attribute of balance. 'Horisontal balance' refers to balance within a perspective. For example, within the financial perspective, there are normally objectives related to productivity as well as growth, and in the internal process perspective, there can be innovation processes and operations management processes, amongst others (Garengo & Biazzo, 2012; Kaplan & Norton, 2004).

Garengo et al. (2005) noted that some authors include more aspects under 'balance', such as:

- Measures relating to all organisational levels; and
- Attention to the results-determinants relationship of measures (leading & lagging indicators).

The general meaning of a balanced system is however that it refers to a multi-dimensional/perspective system.

2.3.4. Objectives: Deciding WHAT to measure

It was difficult to decide which metrics to use until the principle of objectives was discovered. Objectives made it easier to choose the correct measures for a PMS (Niven, 2014; Rohm et al., 2013). Objectives are a clever way to determine what to measure in a PMS. It was not always like that – PMS designers jumped straight into measures, resulting in an increased risk of misguided measures and too many measures (Niven, 2014). Several authors have noted that you should never start with measures – but with the goals you want to achieve – then translate them into measures (Niven, 2014; Rohm et al., 2013).

Niven (2014) defined an objective as the answer to the following question:

> *What must we do well on a continuous basis to achieve a certain desired result?*

An objective always begins with a verb (Niven, 2014; Rohm et al., 2013). The test for qualifying as an objective, is that it should be an ongoing action, not a limited duration project. Translating objectives/goals into measurable terms presents a common challenge. Objectives should therefore be described in clear unambiguous language as a specific statement (Barr, 2014).

A frameworks guides the designer in deciding which objectives to choose, as it enables the designer to choose measures that will support the objectives. Several authors warn against the temptation to include too may objectives in a PMS, which would result in an unfocussed system. The key is to include only the few really important objectives that represent the key performance areas to concentrate on by management. (Barr, 2014; Niven, 2014; Rohm et al., 2013; Schiemann & Lingle, 1999; Spitzer, 2007).

In the researcher's view, choosing the correct objectives is the most important part of PMS design and also the most difficult.

2.3.5. Measures: Deciding HOW to measure

2.3.5.1. Defining measures

Objectives are developed with a framework, but measures still have to be chosen/designed to reflect if these objectives are achieved. Objectives will not be reached if they are not measured as there will be no evidence that they have been achieved (Rohm et al., 2013). Objectives and measures go hand-in-hand: objectives help in identifying the correct measures, whereas measures drive the fulfillment of objectives.

Rohm et al. (2013) emphasised the importance of the correct measures by noting that measures have behavioral consequences and reminding the reader of Peter Drucker's famous saying: "What gets measured gets done". The wrong measures can therefore have unintended outcomes (Rohm et al., 2013).

Out of many definitions of what a measure (metric) is, the researcher prefers the one by Stacey Barr (2014) because of its clarity and simplicity:

> *A measure is evidence of the degree to which an objective is achieved.*

Several authors have compiled generic catalogues typical of measures to be used as reference to help you select appropriate measures in the different perspectives (Neely, 2007; Niven, 2014; Rohm et al., 2013).

2.3.5.2. Types of measures

Three types of measures (Harbour, 2009) can be found in a PMS: descriptive-, diagnostic- and predictive measures. The types are not mutually exclusive and a specific measure can therefore be used as more than one type:

- 'Descriptive measures' describe what is happening or what has happened. They are predominantly backward looking and are therefore always lagging indicators. Baseline measures, which establish current or initial performance, are descriptive measures. Trending measures, which show performance over time compared to the baseline, are also descriptive.
- 'Diagnostic measures' tell us why something is happening and can highlight specific problem areas. They are often found in lower-level process control type of measures.
- 'Predictive measures' are used to predict what may happen in the future, but to date has not happened. Past - or present descriptive performance measures are used to extrapolate some future outcome. They are therefore forward looking – leading indicators. "Good predictive measures are often difficult to develop and mostly require some type of extrapolation and interpretation" (Harbour, 2009).

2.3.5.3. Measuring intangibles – an increasing challenge

Research has shown that by far most of the value in organisations is derived from intangible assets, and of these assets, human capital is primary. The value of human capital is the most distinguishing feature among modern organisations (Kaplan & Norton, 2004). And yet, these assets are not measured by a company's financial system.

The value on a traditional balance sheet represents only the tangible value of the company – which according to a 2017 study by the intellectual capital merchant bank, Ocean Tomo (2017), can be as low as 16 percent of the market value of the company. Figure 2.1 shows the results of this study that was done on the components of market value of S&P 500 companies between 1975 and 2015. The intangible component of company market value had risen from 17 percent to 84 percent.

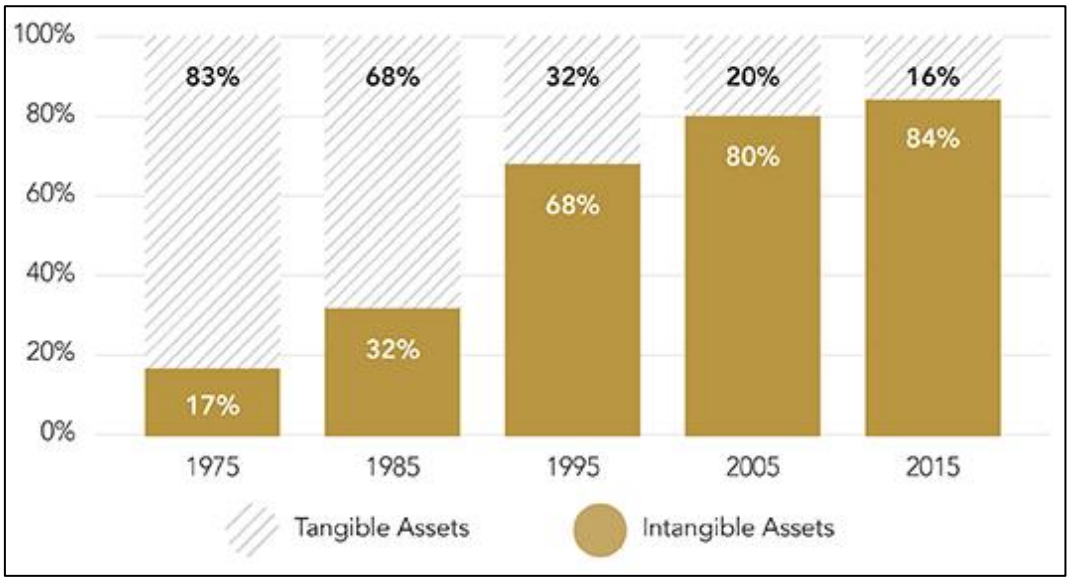


Figure 2.1: Components of S&P 500 market value

Source: Ocean Tomo LLC, 2017.

The logical conclusion then, is that the bulk of a PMS would have measures supporting intangibles. Even so, organisations worldwide are plagued by non-alignment of their human capital with their objectives (Kaplan & Norton, 2004). Measuring intangibles presents a much bigger challenge than for tangibles (Niven, 2014). Examples of intangible assets mentioned in literature, are (Hubbard, 2010; Kaplan & Norton, 2004; Niven, 2014):

- Human capital;
- Databases and information systems;
- Responsive, high-quality processes;
- Customer relationships;
- Brand awareness;
- Innovation capabilities;
- Culture; and
- Internal process systems.

2.3.6. Leading and lagging indicators

Lagging indicators are ‘backward-looking’ – measuring something that has already happened – characterising historical performance. They are easy to measure but difficult to influence or improve, and normally output orientated (Harbour, 2009). The most common example is financial statements.

Leading indicators are ‘forward-looking’ and can be seen as the drivers of lagging indicators. Improved performance in a leading indicator will drive better performance in the lagging indicator. Leading indicators are therefore performance drivers. They are normally difficult to measure but easy to influence or improve, and typically input orientated (Harbour, 2009).

A good example is the goal of weight loss (Van der Poel, 2019). A person's future weight may be predicted by measuring (1) his calorie intake and (2) calories burnt. Both these measures will be difficult to measure but easy to influence. Leading indicators are therefore used to forecast future performance.

Table 2.1 shows Niven's concise comparison of leading and lagging measures (Niven, 2014).

Table 2.1: Lag and lead performance measures

	Lag measures	**Lead measures**
Definition	Measures focusing on results at the end of a time period. Normally characterise historical performance.	Measures that drive or lead to the performance of lag measures. Normally measure intermediate processes and activities.
Examples	- Revenue - Employee satisfaction	- Time spent with customers - Absenteeism
Advantages	Normally easy to identify and capture.	Predictive in nature, and allow the organisation to make ajustments based on results.
Issues	Historical in nature and do not reflect current activities. Lack predictive power.	May prove difficult to identify and capture. Often new measures with no history at the organisation
The performance measurement system should contain a mix of lag and lead measures		

Source: Adapted from Niven, 2014.

2.3.7. Performance measure hierarchy

Performance measures should be able to provide different levels of detail, normally related to the corresponding management level in the business, and to enable better diagnostic capabilities to a measure (Harbour, 2009). The same measure is often needed at different levels of an organisation but will very likely look different at each level. For example, measuring capacity utilisation at business level will be very different from measuring it at machine operator level. Therefore, a performance hierarchy of the same measure is often created for different levels of the organisation. The term most commonly used, is that a measure is 'cascaded' down the organisation from corporate- to team level, or even individual level (Niven, 2014; Rohm, et al., 2013).

In general, the higher up in the measurement hierarchy, the more important leading indicators become (predictive- and descriptive measures), because planning and strategic activities are more common in the higher levels of a business. Conversely, the lower down the performance measurement hierarchy, the more important lagging indicators become (descriptive- and diagnostic measures), because this is where most of the day-to-day operations are done (Harbour, 2009).

2.3.8. Depth and breadth of a PMS

'Depth' refers to the level of detail that measures are applied and 'breadth' to the scope of activities that are measured (Bäuml, 2014; Garengo, et al., 2005). Bigger organisations, for example, need depth of measures to cascade a measure from top management level down to operational and individual level – through all hierarchies. 'Breadth' refers to the attribute that measures are included from all areas of the business – management, operations, logistics, etc. 'Breadth' refers to a holistic approach to measurement – looking at the big picture (Garengo, et al., 2005).

2.3.9. Alignment and cascading of measures

'Alignment' refers to the state in an organisation when every business unit, departement and individual's efforts are coordinated to work together towards fulfilling the organisation's ultimate goal (Kaplan & Norton, 2008). 'Alignment' in a PMS context is the desired outcome that every objective and measure in the PMS drives the ultimate vision or goal of the organisation. This goal is reached through execution of the organisation's strategy (Garengo, et al., 2005; Kaplan & Norton, 2004; Neely, 2007). Alignment may be direct or indirect through cause-and-effect linkage of objectives.

Alignment is achieved by cascading the corporate level PMS down to the lower levels of the organisation, each with its own set of measures (Niven, 2014; Rohm, et al., 2013). This is one of the most critical elements for an effective PMS – especially with large companies. Alignment is a challenge and a huge problem in most organisations (Kaplan & Norton, 2006; Niven, 2014).

The desired result of alignment, is explained best by a story that Niven (2014) cites:
During the time of the space race to the moon, former US president Lyndon Johnson toured Cape Canaveral, and came across a man mopping the floor. The president asked the man: 'What's your position here?' The man looked up from his pail and proudly replied: 'I'm helping to send a man to the moon, Mr President'.

This explains the power of alignment, when every employee, irrespective of job or rank, has a clear line of sight between their job and the organisation's mission and vision (Niven, 2014).

According to Kaplan and Norton (2006), effective organisational alignment probably has the biggest payoff of any management practice. Niven (2014) added that "this finding is no surprise, because through alignment you are harnessing the greatest resource known to business: the hearts and minds of your employees".

The aim of the cascading process is to let everyone work out how their jobs and actions can contribute to overall goals, and therefore success of the business. In conclusion, the following quote of unknown source exemplifies the purpose:

> *The most important thing you can do for your company is to help everyone understand the business in the same terms as the CEO.*

2.3.10. Strategic PMS

Every PMS must strive at critical objectives or goals. These goals actually 'drive' the PMS. A strategic performance measurement system (SPMS) is just a PMS where strategy execution is the success goal. Micheli and Manzoni (2010) described a SPMS as a "sub-set of PMS", which integrates long-term strategy and operational goals. A SPMS basically "operationalises" a firm's strategy through a set of performance measures. A SPMS is in essence therefore a strategy execution system (Kaplan & Norton, 2008).

The logic of a SPMS is that a business should not focus on being excellent at everything, but only the critical few objectives that are central to the execution of its strategy (Kaplan & Norton, 2000; Niven, 2014; Rohm, et al., 2013; Spitzer, 2007).

Organisations with a formal strategy execution process outperform those without one (Kaplan & Norton, 2008); this is what SPMS is all about. According to research, only ten percent of organisations execute their strategies effectively (Niven, 2014). Most organisations suffer from poor strategy formulation – but even more from poor strategy execution (Kaplan & Norton, 2008; Niven, 2014).

According to Niven (2014), a SPMS has been found to be one of the top three management tools of the past 2 decades to contribute to dramatically increased business profitability.

2.3.11. Mapping of objectives in a PMS

Some PMS frameworks use a graphic demonstration or map to concisely present the logic and 'story' of a PMS in a specific organisation. Objectives are normally linked in cause-effect relationships in the different perspectives to demonstrate how they work together (aligned) to drive performance and create value for the organisation. The most well known is the 'strategy map' (Kaplan & Norton, 2004) used in the Balanced Scorecard PMF. Other examples are the 'success map' of the Performance Prism framework (Neely, 2007) and the 'results map' of the PuMP performance measurement methodology of Stacey Barr (2014). Figure 3.9 in Chapter 3 is an illustration of a generic strategy map for a PMS using the BSC as framework.

2.3.12. Targets

According to Rohm et al. (2013), "Setting of targets describes the desired performance level of the measure and is as important as the measure itself. Targets drive employee motivation and initiative". Rohm et al. (2013) proposed three methods to establish targets:

- *Baseline*: Using historic or current performance data to establish a 'normal' target.
- *Benchmark*: Using some acknowledged standard for excellence as target, such as the best practice in your industry.
- *Customer- and compliance driven*: Using information from your customers and compliance standards such as service level agreements and minimum safety levels.

2.3.13. Correlated measures

The tendency is generally to have too many measures in a PMS. One way of reducing the number of measures, is to look for relationship or correlation among measures (Harbour, 2009). If two measures have a close correlation, only one needs to be measured and extrapolated to the other. This is obviously very useful where some measures are difficult or even impossible to actually measure; then simply look for another measure that is closely correlated.

2.3.14. Initiatives

An initiative is any project or action dedicated to improving the outcome or performance of a specific objective. It is therefore a limited duration project. Initiatives are often confused with objectives, which are continuous activities (Neely, 2007).

“Strategic initiatives reduce the performance gap in strategic objectives and help achieve strategic results” (Rohm, et al., 2013). Initiatives can be projects, studies, programmes, or any process-improvement activity that will have a positive impact on the performance of a specific objective. Initiatives are therefore not an absolute requirement in a PMS – if performance is not far off target, it will not require an initiative to get it on track. Every objective does not necessarily have an initiative coupled to it, and many objectives may have more than one initiative. The same initiative may also be tied to more than one objective (Rohm, et al., 2013).

Rohm et al. (2013) stated that there are common initiatives that they have found to appear across all types of organisations:

- *Capacity-building initiatives,* such as: training, leadership development.
- *Process-improvement initiatives,* such as: IT upgrades, process-improvement teams, lean & Six Sigma programmes, financial management systems, customer and employee satisfaction surveys.

2.4. EVOLUTION AND NATURE OF PERFORMANCE MEASUREMENT

Up to about 1980, performance measurement was dominated by one-dimensional, lagging, financial measures (Bourne, Mills, Wilcox, Neely, & Platts, 2000; Carlyle, 2013; Garengo et al., 2005; Neely, 2007; Zeglat, 2012). The writings of Drs Kaplan and Norton from Harvard, back in 1992 when they introduced the Balanced Scorecard (BSC) (Kaplan & Norton, 1992), gave the momentum for the development of the modern performance measurement systems. The BSC has dominated the PMS field ever since, with between 26 and 60 percent of large firms worldwide having adopted it (Tatiicchi et al., 2010).

PM is a very immature field with the bulk of the research occurring since 1990 (Tatiicchi et al., 2010). Carlyle (Carlyle, 2013) notes that after 2000 little new research was done on new PM frameworks and the focus was more on critique and validation of existing frameworks – especially the BSC.

Business performance measurement, and in fact the performance measurement of any organisation, has experienced radical transformation the past 3 decades. Long gone are the days that an audited set of financial statements was the supreme and sole yardstick of the health of a business.

Disastrous business failures opened the business world's eyes to see that the traditional income statement and balance sheet paints an incomplete picture of a business's performance (Meyer, 2002) – and especially their long-term health. An example was the 2001 Enron scandal, which is regarded as the biggest bankruptcy and audit failure at that time (Wikipedia, 2019a). Managers are continuously under pressure to deliver consistent, good short-term financial performance, which inevitably leads to cost cut-backs in investment in area such as training, research, innovation – that will eventually negatively impact on the sustainability of the business (Kaplan & Norton, 1992; Neely, 2007).

Bourne, Mills, Wilcox, Neely and Platts (2000) noted that performance measurement systems before the 1980s were criticised for:

- Focussing on external financial need rather than managing the business;
- Encouraging short-term focus;
- Being backward looking – reporting on historic performance with no indication of future performance;
- Being focussed on internal efficiencies rather than the marketplace;
- Encouraging minimisation of variance rather than continuous improvement;
- Lacking strategic focus; and
- Not being relevant to most employees.

Historically the traditional balance sheet and income statement were the sovereign measure of business performance. Even today this remains the case for the majority of companies.

Traditional income statements are lagging indicators – looking back (generally 6-12months) and at best tells us what has happened. The Steinhoff failure in 2017 was the biggest corporate failure in SA history, despite reporting excellent financial results in previous years (CNBC Africa, 2018). The Steinhoff case and in fact, any of the world's stock exchanges, are testimony that last year's winners (as judged by their reported profits) will not necessarily be on the winners' podium next year.

Traditional balance sheets report only the tangible assets of a business. As noted in Section 2.3.5.2, the biggest assets of the modern business are actually off-balance sheet 'intangible assets', such as: brand name, systems (financial/operations/procedures/controls), and trained personnel.

Kaplan and Norton (1992) realised that the most important asset of a business is its people – human capital. They realised that this asset had to be measured in order to be managed. Subsequently, identifying and measuring the leading indicators that drive future profits, and developing and measuring intangible assets, giving a more accurate and balanced picture of sustainable business value, have dominated business performance measurement development in the past two decades.

Modern PMSs are therefore balanced with measures across all dimensions of the organisation, and not skewed towards financial measures only. Financial measures should be retained to summarise measures/results previously taken (Kaplan & Norton, 1992). The financial dimension of a PMS consists of lagging measures or indicators, whereas the other dimensions have leading indicators.

Over the last twenty years *strategic* PMSs became very popular, again primarily because of the introduction of Kaplan and Norton's Balanced Scorecard. After 2000, a shift to address the needs of all stakeholders – not only shareholders, become noticeable (Garengo et al., 2005; Neely, 2007). Environmental issues and sustainable development as statutory requirements have become very important in recent times in business reporting (Raymond et al., 2011).

The evolution of business performance measurement can be summed up as follows:

- From financial only to a set of balanced measures;
- From measuring only tangibles to also measuring intangibles;
- From lagging to leading indicators;
- From an operational perspective to a strategic perspective;
- Catering for the needs of a selected few stakeholders to the needs of all stakeholders; and
- Inclusion of environmental/sustainability aspects.

Franco-Santos et al. (2007) found the roles of PMSs nowadays also include:

- Focussing priorities in the organisation (aligns the priorities of employees);
- Strategy implementation; and
- Internal communication of priorities.

2.5. CHARACTERISTICS OF A ('GOOD') PMS

Several researchers have specified the requirements or characteristics of a good or ideal PMS, irrespective of the business size. In Table 2.2 the requirements noted in four different research papers are compared (Cocca & Alberti, 2010; Garengo, et al., 2005; Hudson, Smart & Bourne, 2001; Kennerly & Neely, 2002). Table 2.2 shows that the list of requirements by Garengo et al. (2005) is the most comprehensive and is also still cited by recent PMS studies (Wasniewski, 2017).

The requirements specified by Garengo et al. (2005) highlighted in Table 2.2 were used as basis for describing the characteristics/requirements of a PMS *in general*.

Table 2.2: Requirements for a 'good' PMS framework (irrespective of size) as stated by four different studies

Author		Garengo et al., 2005	Kennerly & Neely, 2002	Cocca & Alberti, 2010	Hudson, Smart & Bourne, 2001
Requirements for a good PMS (irrespective of business size)	1	Strategy alignment		Derived from strategy	Derived from strategy
				Link operations to strategic goals	Link operations to strategic goals
	2	Strategy development		Stimulate continuous improvement/right behaviour	Stimulate continous improvement
	3	Focus on stakeholders		All stakeholders considered	
	4	Balance	Balanced	Balanced/multi-dimensional picture of business	Include dimensions to cover all aspects of the business
			Mult-dimensional		
			Comprehensive		
	5	Dynamic adaptability		Provide fast, accurate feedback	Provide fast and accurate feedback
	6	Process orientation			
	7	Depth and breadth	Integrated accros functions and hierarchy	Promote integration	
	8	Casual relationships	Results are function of determinants	Monitoring past performance	
				Planning future performance	
	9	Clarity and simplicity	Succint overview	Simple to use and understand	Simple to understand and use
				Clearly defined/explicit purpose	Clearly defined with an explicit purpose
				Relevant and easy to maintain	Relevant and easy to maintain
				Easy to collect	
				Defined formula and source of data	

Source: Researcher's compilation.

Identifying these requirements/characteristics of a PMS in general, is the start of the process to establish the requirements for a SME PMF in a SA context – which was the secondary objective of this study. This objective was derived through the general PMS requirements, the general SME PMS requirements (Chapter 4), and finally the SME PMS requirements in the SA context (Chapter 4). This seemingly clumsy route was necessitated because of the lack of information about the requirements for a SME PMS in SA. Consequently, the end product was developed through logical conclusions from available literature.

2.5.1. Discussion of PMS requirements

The requirements of a good PMS as specified by Garengo et al. (2005) in Table 2.2 are further expanded on in this section.

2.5.1.1. Strategy alignment

Strategic alignment (basically being a SPMS) is mentioned by just about every researcher in the PMS field according to the researcher's own observation. It implies that measures should be derived from the business's strategic objectives (Kaplan & Norton, 2008; Niven, 2014; Rohm, et al., 2013). The PMS should link high-level strategic goals with operational measures – thereby operationalising strategy (Cocca & Alberti, 2010; Hudson-Smith & Smith, 2006).

2.5.1.2. Strategy development

The mutual relationship between strategy and PMS is prominent in PMS literature according to Garengo et al. (2005). PMS should support the definition and development of the business strategy. Some authors like Niven (2014) indeed supports designing a PMS and developing a strategy as one process. PMS frameworks such as the BSC is ideal for strategy and PMS design combined (Niven, 2014). The PMS also provides information that indicates the effectiveness and efficiency of a business's activities and therefore, whether its existing strategy is working or not – giving inputs to possible alternative strategies and continuous improvement.

2.5.1.3. Focus on stakeholders

There is a growing movement that business must cater for the needs of all stakeholders – not only the shareholders (Garengo, et al., 2005; Neely, 2007). Examples of typical other stakeholders can be employees, local communities, environmental pressure groups and government. The implication is that defining who the stakeholders are and what their needs are, should become part of PMS design. Some frameworks such as The Performance Prism (Neely, 2007) even goes so far as to require stakeholder needs as starting point for PMS design rather than strategy.

2.5.1.4. Balance

The characteristic specifically referred to here is vertical balance, i.e. balance between perspectives.

2.5.1.5. Dynamic adaptability

Dynamic adaptability refers to the capability of a PMS to react on and adapt to changes in the business's external and internal environment. According to Garengo et al. (2005), a PMS should therefore include reviewing systems that will make it possible to adapt measures and objectives to the changing environment.

Bititci, Turner and Begemann (2000) identified the following requirements for a dynamic adaptable PMS:

- *An external monitoring system* which continuously monitors developments and changes in the external environment. It is the researcher's opinion that these changes will not be frequent, because they would be of a strategic nature.
- *An internal control system* which continuously monitors developments and changes in the internal environment. The PMS must alert management when measures are out of range and corrective action has to be taken. It is the researcher's opinion that these changes will be more frequent, because they would be of an operational nature.
- *A review system* which "uses the performance information from the external and internal monitoring systems and the objectives and priorities set by higher-level systems to decide internal objectives and priorities".
- *A deployment system* which implements the revised objectives and measures and aligns the whole organisation to these objectives and measures.

Most companies use static and not dynamic PMSs due to the following reasons (Bititci et al., 2000; Garengo et al., 2005):

- The inability to understand and quantify the causal relationships between objectives and measures;
- The lack of suitable frameworks and IT platforms that can facilitate the management of dynamic PMSs;
- The inability of management to distinguish between control- and improvement measures; and
- The inability of management to "systematically relate the internal and external environmental changes to their PMSs".

2.5.1.6. Process orientation

Garengo et al. (2005) defined process management in organisational context as "an approach based on the organisation of a company as a whole set of interconnected activities which aim to map, improve and align organisational processes".

Process management is very useful in meeting stakeholder expectations. The performance of business processes directly affects the reliability of the processes and therefore, has a direct impact on stakeholder satisfaction. Process management, in addition, promotes the integration of the different company functions (Garengo et al., 2005).

PMSs should therefore change from having functional performance measures to process performance measures. This is difficult in most companies because their organisation is still based on functional units. In smaller businesses, process-orientated a PMS is simpler than in larger ones, because their processes are more visible (Garengo et al., 2005).

2.5.1.7. Depth and breadth

In general, PMS authors agree that businesses should initially focus on achieving breadth in their PMSs in order to establish a balanced, integrated PMS. Large companies need much more depth in their measurement systems than smaller businesses, in order to cascade measures down to operational units (Garengo et al., 2005; Watts & McNair-Connolly, 2012).

2.5.1.8. Causal relationships

A PMS must contain measures that represent results, but also measures that represent the determinants of those results, i.e. logical casual relationships amongst drivers and outcomes (Bititci, et al., 2000; Garengo et al., 2005; Harbour, 2009). Put differently: A PMS should consist of leading measures (performance drivers) as well as lagging measures (outcomes) (Kaplan & Norton, 1992). Niven (2014) added that there must be a mixture and balance of leading and lagging measures in the scorecard.

Several PMS frameworks (such as the BSC, Performance Prism and Results and Determinants Framework) as part of their structure, show general causal relationships among measures in different perspectives/dimensions. However, to determine the causal relationship between individual objectives and measures, and especially to quantify that relationship, has proven quite difficult (Garengo et al., 2005).

2.5.1.9. Clarity and simplicity

Several authors are of the opinion that clarity and simplicity should be one of the main dimensions of a PMS, because it is crucial to its successful implementation and use (Carlyle, 2013; Garengo et al., 2005; Hudson-Smith & Smith, 2006; Mabhungu, 2017)

Garengo et al. (2005) highlighted the following components that characterise clarity and simplicity in a PMS:

- Clear definition and communication of the objectives that the business wants to achieve through the supporting measures.
- Careful selection of measures – limiting the number to only the few really important ones. In a business PMS, that will most often mean only the really strategic measures (Niven, 2014; Rohm et al., 2013; Schiemann & Lingle, 1999). The tendency is to have too much data in a PMS, with these authors suggesting a maximum of 15 to 25 measures per manager to handle (Harbour, 2009; Spitzer, 2007).
- Clear definition of measures and objectives that these measures support.
- Clear definition of how to gather and elaborate data so that the quality of the data can be maintained.
- Use of relative rather than absolute measures because they are easier to read and understand (Barr, 2014).
- Clear definition of how the processed information is to be presented for communication.

2.6. CHAPTER CONCLUSION

The net effect of developments in the performance measurement field, is that there is a much better idea of what to measure to give the user a far better picture of current business performance, as well as a prediction of future performance.

PMSs in business or any organisation have become multi-dimensional, representing a snapshot or cross-section of the entire business. Financial measures are in the minority, with leading indicators such as customer and business process measures comprising the majority of measures populating a modern PMS. Measurement of intangibles, such as brand image, company culture, employee skill levels and business systems' efficiency, are a requirement because these are recognised as the most valuable resources of modern business. Intangibles can however be challenging to formulate in numbers.

The strategy of a business is an important input to its PMS – if not the most important. Objectives and measures are mostly aligned to the strategy.

Where business PMSs traditionally reflected primarily the needs of the shareholders, the needs of multiple stakeholders, such as employees, suppliers and investors, are reflected more and more in PMSs. Recently sustainability objectives have grown in importance and have become part of PMSs, especially in big business. The characteristics (and design requirements) of a PMS in general without reference to size were identified and are summarised in Figure 2.2 below.

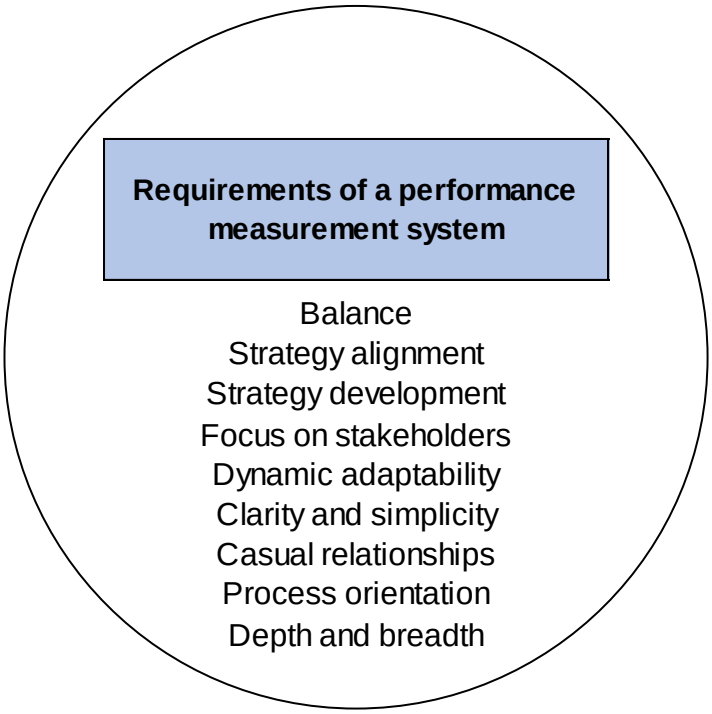


Figure 2.2: General requirements for a PMS as a whole

Source: Researcher's compilation from literature.

CHAPTER 3:
PMS DESIGN AND IMPLEMENTATION USING THE BSC FRAMEWORK

3.1. INTRODUCTION

In this chapter it is demonstrated what it entails in practice to design and implement a PMS in a business in general without specific reference to size. The researcher thought it necessary to include a fairly detailed description of the process in the literature study part of this thesis. The reason for this is to understand and demonstrate the degree of complexity and the comprehensiveness of the process – a feature that is very relevant when designing a PMS framework for SMEs.

This is done by using the Balanced Scorecard Framework as example. There are many other frameworks for this purpose, but the BSC is the most well known, well researched and widely used of all the PMS frameworks worldwide (Hudson, Smart, & Bourne, 2001; Niven, 2014; Rompho, 2011) resulting in its comprehensive and detailed documentation by several researchers and authors. It is also this researcher's observation that, in contrast to the BSC, most alternative PMS development frameworks offer little or no guidelines at all regarding their successful implementation and are actually quite vague on practical details.

The design and implementation process for a PMS is summed-up from the literature and presented by the researcher as a 7-step process route map, abbreviated by the acronym "SOMIMAD'. Each of the process steps is then described in a detailed 'how-to" format to enable understanding of the practical implications for a business embarking on a PMS development process.

3.2. THE BALANCED SCORECARD LOGIC

The BSC framework was created in 1992 by Kaplan and Norton (1992), spurred on by the growing realisation that financial measures alone were inadequate to capture true performance of a business. The authors proposed four perspectives (refer Section 2.3.2) through which a business or organisation *is looked at with regards to performance measurement*. The four (4) perspectives are one of the distinguishing features of a BSC, i.e:

(a). Financial: What would the shareholders like to see if the company is successfull?

(b). Customer: How will we look to the customer if our strategy succeeds? What must we do well?

(c). Internal processes: What must we do well continuously to achieve our strategy?

(d). Employee learning & growth: Which capabilities do we need to develop?

The authors however declared that additional perspectives can be added or changed, to fit a specific situation. The four perspectives are connected in a broadly described cause-effect relationship:

- Learning drives processes, which drive customer outcomes, which ultimately drive financial outcomes. Learning and process perspectives contain leading metrics or indicators, whereas customer and financial perspectives contain lagging indicators.
- Learning and process perspectives contain activities (drivers of performance), whereas customer and financial perspectives contain outcomes.

Figure 3.1 is an illustration of the BSC logic. Kaplan and Norton advised that financial measures should be retained to summarise measures/results previously taken, but these measures should be balanced by non-financial measures in the other perspectives that present the drivers or the leading indicators of future results. The BSC is driven by the strategy of the business. Kaplan and Norton (2000) stated:

> *…the Balanced Scorecard translates an organisation's mission and strategy into a comprehensive set of performance measures that provide the framework for a strategic measurement and management system.*

Niven (2014) confirmed that the BSC is a tool designed to faithfully translate mission, vision, and strategy into performance objectives and measures in each of the four BSC perspectives.

A BSC system consists of two (2) main components: the *scorecard* itself plus a *strategy map* as illustrated in Figure 3.2. The strategy map sits on top of the balanced scorecard; each strategy map has a scorecard behind it (Jones, 2011). The scorecard consists of measures, targets and initiatives residing in the four (4) BSC perspectives. The strategy map is a graphic method (refer Section 2.3.11) to convey the strategy of an organisation and precedes the design of the actual scorecard. It is a mapping of the strategic objectives of the organisation, allocated to the four (4) different BSC perspectives, and linked in cause-and-effect relationships.

Measures are developed (in the scorecard) for each objective (in the strategy map) that will reflect the degree to which the objective is achieved. Initiatives also form part of the scorecard (not the strategy map).

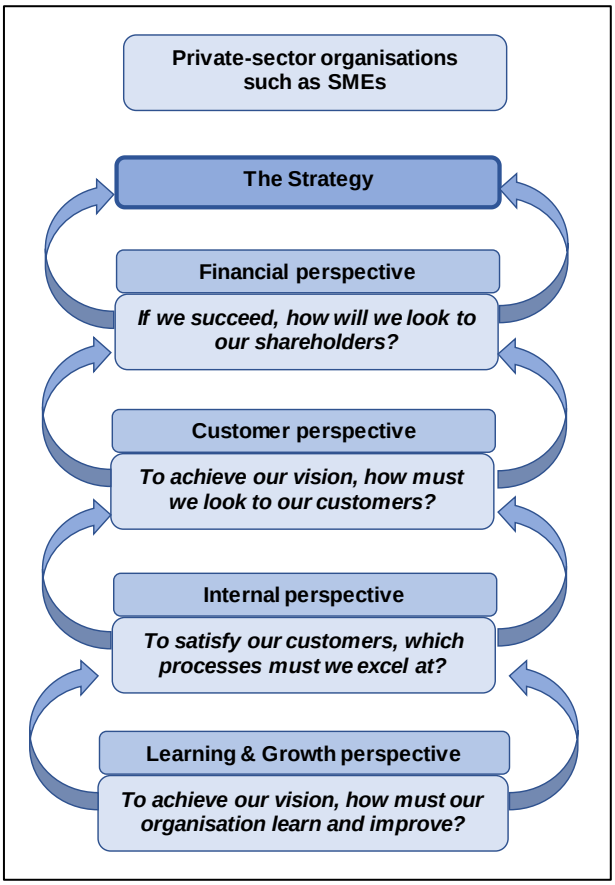


Figure 3.1: The Balanced Scorecard logic

Source: Adapted by the researcher from Jones, 2017.

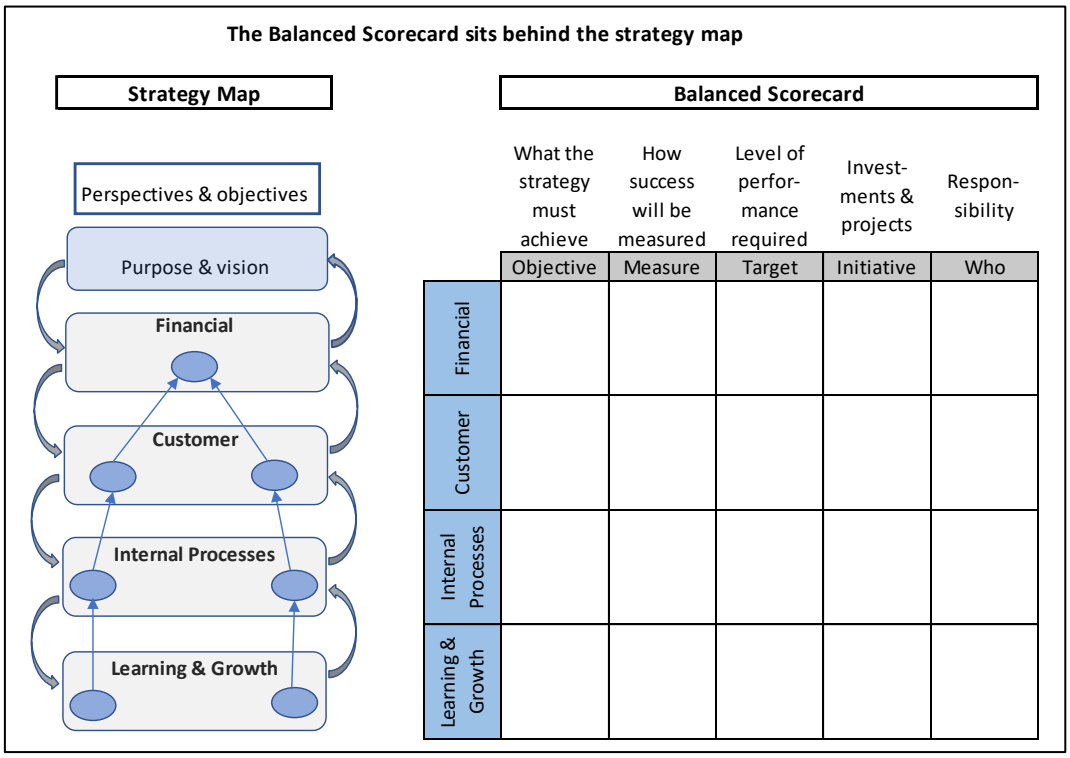


Figure 3.2: The balanced scorecard system components: Strategy map and scorecard

Source: Adapted by the researcher from Jones, 2019.

3.3. IMPLEMENTATION PROCESS OVERVIEW

According to Bourne et al. (2000) and Schieman and Lingle (1999) the implementation process can be devided into four (4) phases:

i) Define strategy and identify strategic objectives (decide what to measure);
ii) Design measures to support these objectives (decide how to measure);
iii) Implement performance measures: cascade/communicate throughout the organisation; and
iv) Use the performance measures (managing through measurement), thereby embedding the measurement system in business processes.

Most examples in literature are for large organisations using the traditional top-down approach starting at the highest strategic level (Kaplan & Norton, 2008; Niven, 2014; Rohm et al., 2013). By 'top-down approach' it is meant that top-level measures are developed by the senior management and driven down the organisational levels to be implemented at lowest - and individual level (Biazzo & Garengo, 2012). This approach is described in this chapter.

Although it may seem a simple four phases to PMS implementation, there are many detailed steps behind each phase, as authors in the PMS field have shown (Kaplan & Norton, 2008; Niven, 2014; Rohm et al., 2013). A very detailed and practical description of the PMS design- and implementation process using the BSC as framework is given by Rohm et al. (2013) from the Balanced Scorecard Institute. Their implementation roadmap is called "the 9-steps to success framework" depicted in Figure 3.3. It represents the typical 'top-down' approach that organisations follow.

Rohm et al. (2013) have added considerable structure and detail to the basic four (4) implementation phases with their methodology. It is a comprehensive process, taking the viewpoint that the organisation's strategy has to be re-assessed or clarified. This reinforces what several PMS authors (Kaplan & Norton, 2008; Niven, 2014) found from experience, i.e. that most businesses – even large ones – do not have a clear formal strategy in place. In the case of SMEs, lack of formal strategy is indeed a general characteristic (Garengo et al., 2005; Hudson-Smith & Smith, 2006). Strategy design or re-design therefore most often becomes part of the PMS implementation process. It is clear from the literature (and Figure 3.3), that PMS design and -implementation touch the entire spectrum of a business, beginning with an assessment of the business environment and the re-evaluation of the mission, vision and values of the business, and continuing right down to individual employee level. This makes traditional PMS design a comprehensive, complex process (Biazzo & Garengo, 2012).

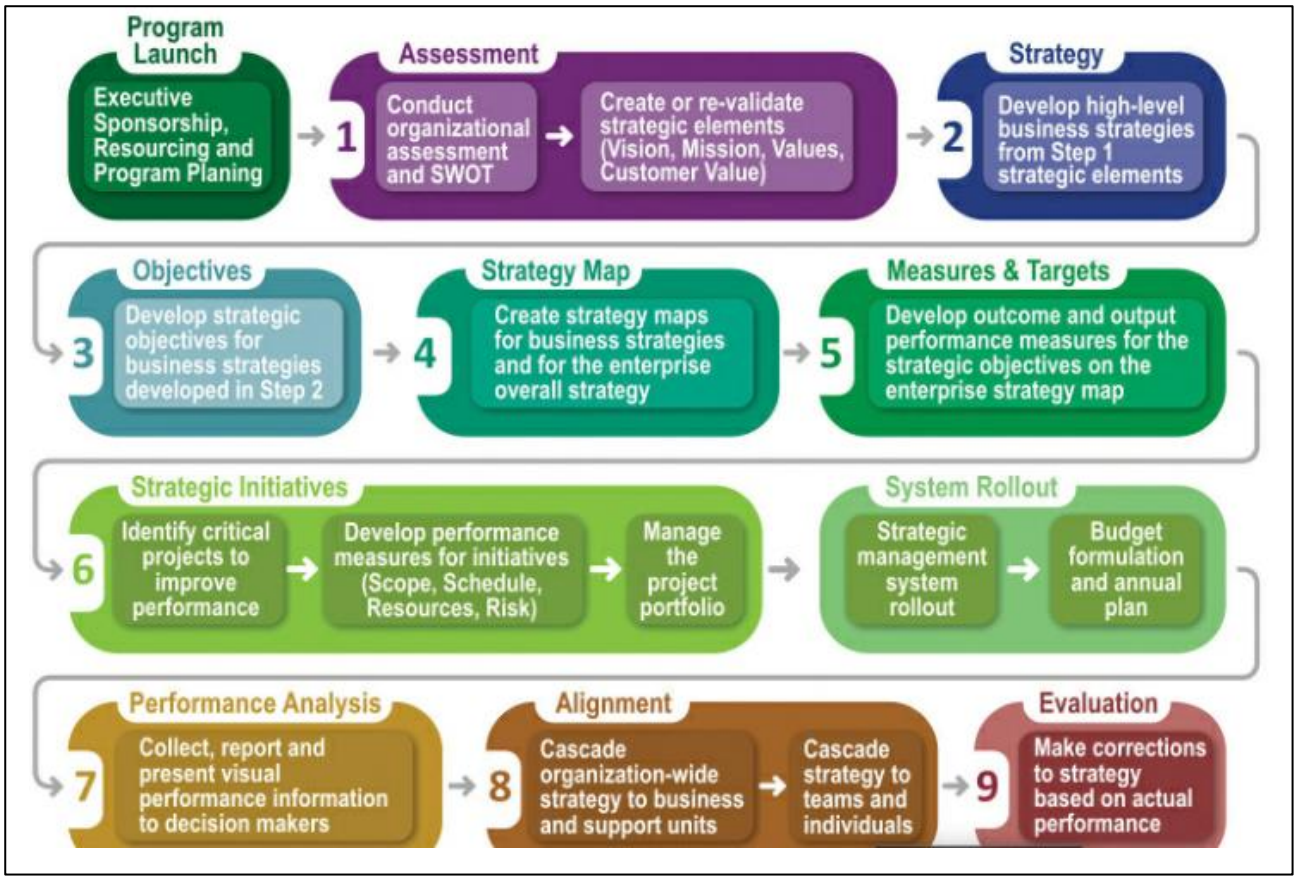


Figure 3.3: The BSC "9-steps-to-success" implementation framework

Source: Rohm, Wilsey, Perry, & Montgomery, 2013.

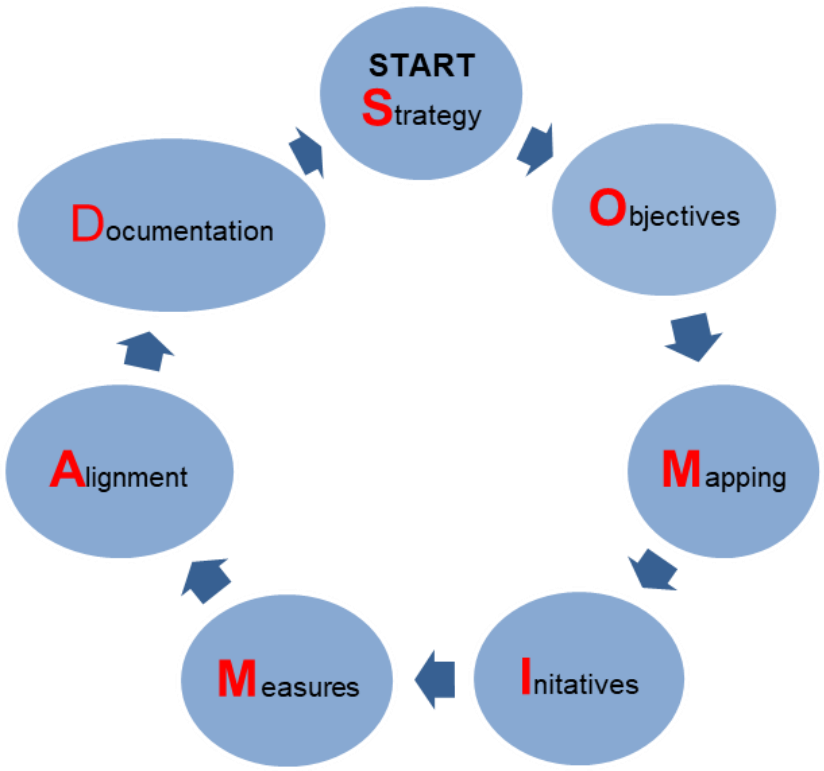
3.4. ROADMAP FOR IMPLEMENTATION: SOMIMAD

The essential PMS design steps can be concisely described as a 7-step roadmap named by the researcher as SOMIMAD (an acronym made from the key word in each step*: Strategy-Objectives-Mapping-Initiatives-Measures-Alignment-Documentation*. The researcher only included steps that are necessary for actual PMS design. Management of the system and getting top management's commitment and employees' buy-in, for example, are not included.

The process is a closed loop, indicating that a PMS is always in an evolving state, because if the 'starting' conditions (strategy) change, the system will change. Revision of a business's strategy will therefore require revision of its PMS elements. The SOMIMAD roadmap is illustrated in Figure 3.4.

Although the roadmap consists of seven distinct steps, in the researcher's experience, the steps overlap considerably when the BSC is developed. For example, developing objectives and creating the strategy map is actually mostly done simultaneously. So does the identification of initiatives already start when objectives are developed. Documentation of the system is also a work-in-progress from Step 2 through-out the process.

Each of the SOMIMAD steps is discussed in detail in the remainder of Chapter 3.



Step 1: Start with **S**trategy – clarify the strategy and make it measurable.

Step 2: Choose **O**bjectives – to complement the strategy.

Step 3: Visualise & communicate strategy – by **M**apping objectives in a Strategy Map

Step 4: Choose **I**nitiatives – to close the performance gap.

Step 5: Develop **M**easures – that will support objectives & initiatives

Step 6: **A**lign the organisation – let all employees work towards strategic objectives

Step 7: **D**ocument the system – prepare the system for operational use.

Figure 3.4: The SOMIMAD roadmap for PMS design and implementation

Source: Researcher's compilation.

3.5. STEP 1: STRATEGY

This section shows that a working knowledge of the development of mission- and vision statements and company values, as well as strategy formulation and clarification, is important in Step 1 of the PMS design process. The development of strategy starts with clarifying the mission, values and vision to re-affirm the high-level purpose and conduct of the business (why are we in business?). It is then followed by a strategic analysis of the external and internal business environment to determine all the key issues that influence the strategy. From this background, flows the actual formulation of the strategy (Kaplan & Norton, 2008; Niven, 2014; Rohm et al., 2013).

3.5.1. Defining the 'raw materials' of a PMS

3.5.1.1. Mission

A mission statement defines the core purpose of the business: "Why it exists/what will it be, and why will it matter to whom?" It should describe especially what the organisation does for its customers, employees and shareholders (Kaplan & Norton, 2008; Niven, 2014).

3.5.1.2. Values

"The core values establish what the company believes in and what kind of behaviour it seeks to reinforce. Values create a moral compass that forms the basis for decision making and influencing actions in every-day situations" (Rohm et al., 2013). Values represent the company culture and remains generally constant over time.

3.5.1.3. Vision

According to Rohm et al. (2013), the vision creates a picture of the successful business in future through a vivid, compelling statement that captures the imagination – it must begin with the end in mind.

3.5.1.4. Strategy

A business's strategy basically explains how it will achieve superior performance in a competitive environment. According to Rohm et al. (2013), strategy discussions centre on "Are we doing the right things?", while operational and tactical questions address "Are we doing things right?"

Strategy expert, Michael Porter, defined strategy as: "The set of integrated choices that define how you will achieve superior performance in the face of competition" (Magretta, 2012). He said that strategy is in essence choosing *what not to do*, and ignoring this fact is probably the most common cause of strategy failure. It is also about deliberately choosing to be different (Magretta, 2012). Porter emphasised that it means competing to be unique – not the best, and that the goal of strategy is superior profit compared to industry rivals.

3.5.2. Relevance of mission, vision, values and strategy to PM

The mission, vision, values and strategy of a business is considered as the raw materials that are fed into its PMS and can be seen as the building blocks of the system (Niven, 2014). A PMS assumes that a strategy exists. The relevance of these subjects to PM can be summarised as follows:

Mission, values and vision statements impact on strategy because they are meant to continually communicate desirable values, cultures, attutudes, meaning, overall goals, etc. that employees can operationalise in their day-to-day choice of actions.

Strategy is the plan that the business will follow to achieve its vision. The strategic plan consists of strategic objectives that must be achieved in order for the strategy to be executed (Darbi, 2012; Kaplan & Norton, 2008; Niven, 2014).

Because “what gets measured gets done” (Peter Drucker cited by Rohm et al., 2013), performance measurement of strategic objectives will increase the chances that strategic objectives will be achieved and therefore, that the vision is realised.

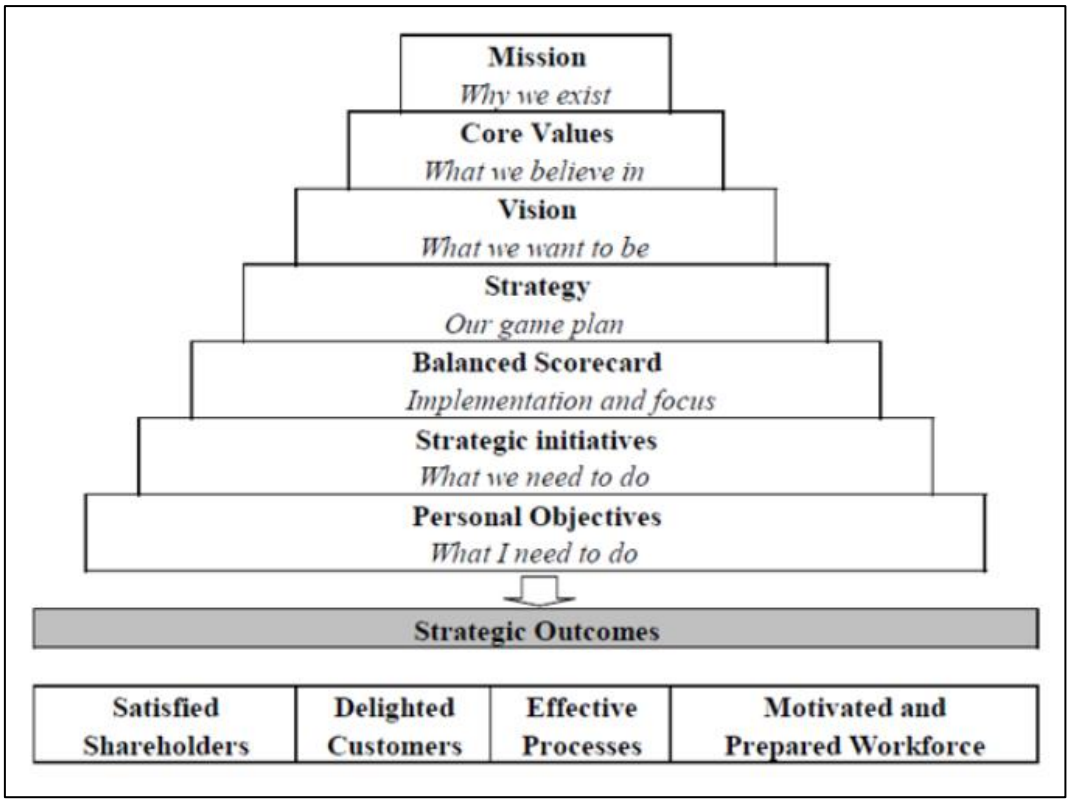


Figure 3.5: Translating a mission into desired outcomes

Source: Kaplan & Norton, 2000.

It can therefore be stated that a business’s PMS will drive strategy execution, which will in turn make the vision come true. The strategic objectives of the business will therefore always be an important input to the PMS. Its therefore very important to have the correct (not misguided) vision, because the BSC will translate your vision into reality through the articulation of vision and strategy (Niven, 2014).

Figure 3.5 illustrates how mission, values, vision, and strategy interrelate with a PMS (BSC in this case) that drives the desired strategic outcomes.

3.5.3. Strategy formulation

This section is not a detailed study of how to develop strategy, but an overview to show what it typically entails: a specialised, resource-intensive process.

As noted, many authors view strategy development as part and parcel of PMS design (Garengo & Biazzo, 2012; Niven, 2014; Rohm, et al., 2013). From a PMS design viewpoint, the biggest challenge with strategy, is to make it measureable, so that the PMS design team can ‘work’ with it (Barr, 2014).

Understanding strategy development therefore helps the PMS designer to translate strategy into measureable terms, and also to eliminate strategic objectives to only the few really strategic ones.

The typical process of strategy development or revision is done mostly annually and consists of four (4) stages (Magretta, 2012):

i) External analysis;
ii) Internal analysis;
iii) Industry/strategic profile determination; and
iv) Choosing a competitive position.

3.5.3.1. External analysis

This consists of analysing the external economic-, industry-, competitive- and political environment in which the business operates. This is typically done through a PESTLE analysis (of the political, economic, social, technological, legal and environmental factors) (Table 3.1) and a Porter's 5-Forces analysis (Refer to Figure 3.6).

A PESTLE analysis focusses systematically on a number of specific external factors listed in Table 3.1. The analyst should scan the environment for any changes or trends in these factors to identify their possible impact on the business in future.

Porter's 5-forces model (Figure 3.6) is a tool that facilitates the analysis of the profitability of the industry in which a business operates. It considers the strength of the "5-forces" that influence potential margin: intensity of competition, threat of substitute products or new competitors' entry, bargaining power of suppliers and clients. The stronger the forces are, the less profitable an industry will be.The general idea is to position a business so that it can escape some or all of the influence of the five forces (Jurevicius, 2013; Magretta, 2012).

Table 3.1: PESTLE analysis template

Factor	PESTLE analysis
Political	Possible changes in government, public sentiment or policy that might impact the organisation
Economic	Global, national or regional economic trends that have an impact on stakeholders, such as greater demand for services
Social	Demographic changes or social trends that impact programmes or activities
Technological	New technologies or technical trends that can impact product or service delivery
Legislative/Legal/Regulatory	Existing laws and regulations and possible changes to them that are applicable to operations
Environmental	Environment and ecology issues like weather, climate and climate change that impact operations, including risks and/or opportunities

Source: Adapted by researcher from Rohm et al., 2013.

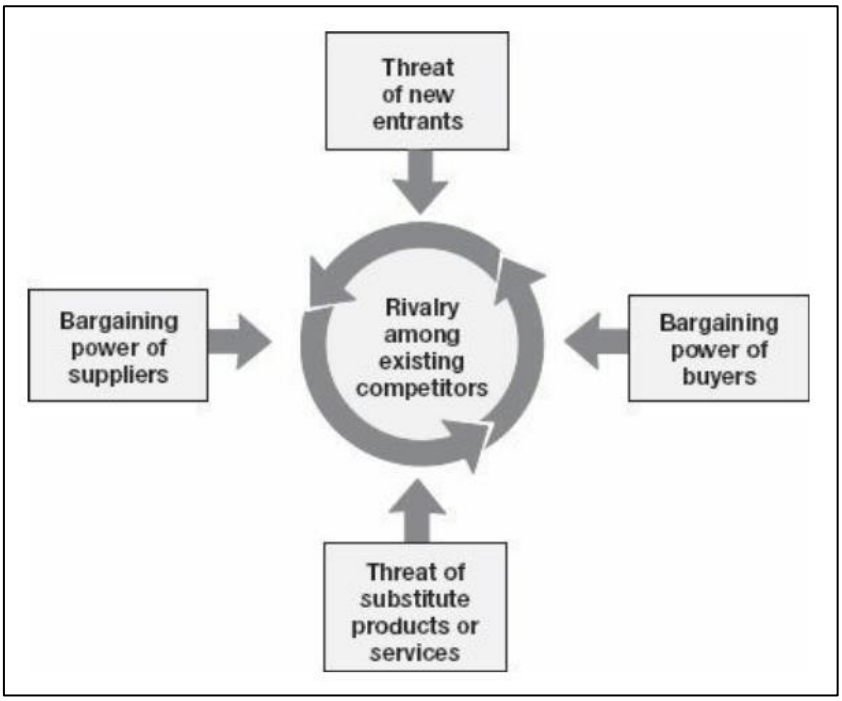


Figure 3.6: Industry structure analysis: Porter's 5-Forces

Source: Magretta, 2012.

3.5.3.2. Internal analysis

This internal analysis consists of determining the business's relative position in the market. A popular tool to assist in this process is Porter's value chain analysis (Figure 3.7). Value chain analysis is a process whereby all internal business activities (primary as well as supporting) that create value, are analysed. The aim is to identify the competitive advantages and disadvantages relative to rivals. The result of this analysis, will facilitate the development of a cost or differentiating advantage, which will help the development of a strategic position (Jurevicius, 2013; Magretta, 2012).

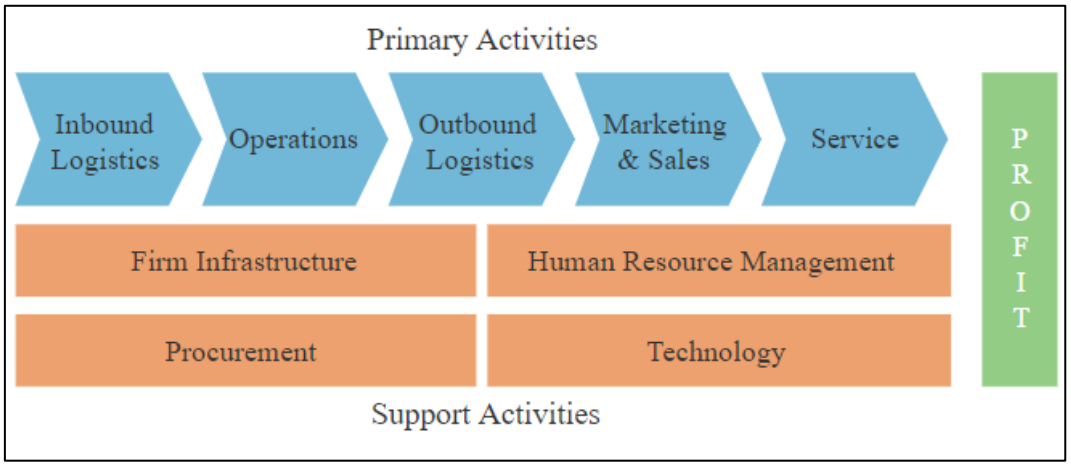


Figure 3.7: Michael Porter's Generic value chain analysis

Source: Jurevicius, 2013.

3.5.3.3. Industry/strategic profile determination

Determining the business's strategy – or industry profile shows where it is positioned relative to its competitors regarding key customer processes. Figure 3.8 shows an example for a new entrant to the airline industry (Rohm et al., 2013). Strategy profiles are very useful to consider alternative strategic positions.

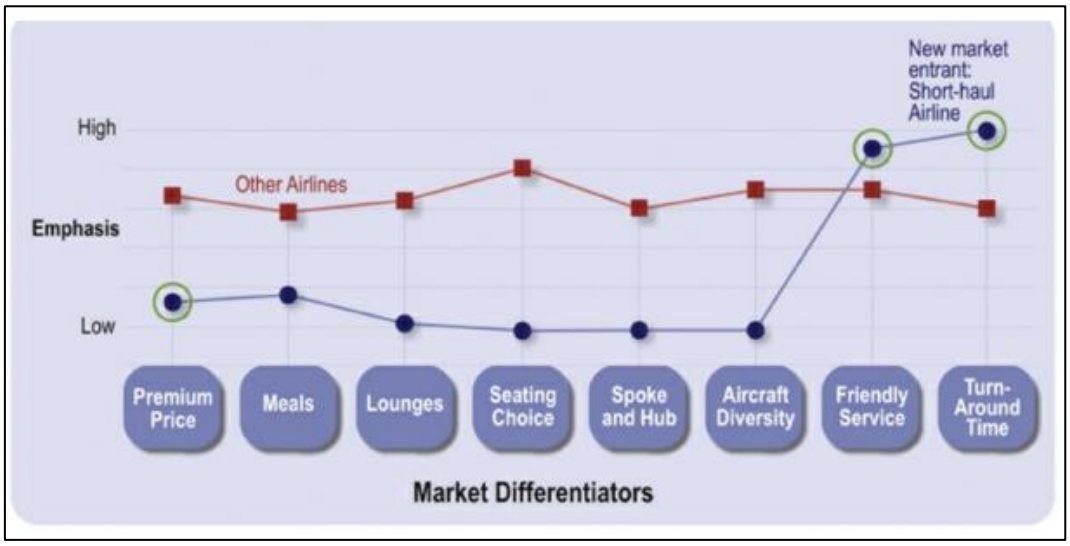


Figure 3.8: Strategy profile example (Airline industry)

Source: Rohm et al., 2013.

3.5.3.4. Choosing a competitive position

The aforegoing analysis now helps the business to find a position in the market from where it has the best chance to compete. As Porter said: "Strategy can be viewed as building defences against the competitive forces or finding a position in the industry where the forces are weakest" (Magretta, 2012).

This final stage of the strategy development process is somewhat of an art, for which there is no formula, but Porter proposed five (5) tests that a good strategy should pass (Magretta, 2012):

- *A distinctive value proposition*. This is the answer to three questions: Which customer? Which need? At what relative price?). It does not mean that you have to be "the best" – rather unique. Porter in fact says that businesses should "compete to be unique".
- *A tailored value chain*. Business activities are designed to optimise delivery of the distinctive value proposition
- *Trade-offs different from rivals*. This entails choices that make strategies sustainable because they are more difficult to copy. It is deciding what not to do. You cannot be everything for everybody – you cannot make all customers happy.

- *Fit across value chain*. The tailored value chain activities must be aligned towards the value proposition and also complement each other. This makes the strategy even more difficult to be copied by rivals. This means that it is not key activities in isolation that create value, but an alignment of many – the system. For example, it is the whole value chain of a McDonalds franchise that is a core competence by itself.
- *Continuity over time*. The core strategy must remain stable enough to allow the organisation enough time to get good at what it does. It takes time for the strategy elements of value chain tailoring, fit, and making trade-offs to develop roots and grow in an organisation.

Rohm et al. (2013) as well as Kaplan and Norton (2008) developed broad strategic themes from the initial external and internal strategic analysis phases which are then used as input to the "objective creating" Step 2 in the PMS/BSC (SOMIMAD) design process. Strategic themes are broad action-orientated statements serving as components of strategy. They comprise of linked objectives flowing through the four perspectives.

Niven (2014) agreed that strategic themes can be a short-cut in strategy development, but cautioned that it may result in a too generic and vague strategy, such as "low cost" or "customer driven". The danger is to become too generic and vague, and not be uniquely differentiated. Companies tend to default to a standard set of themes – like operational excellence, or customer faced. Porter also stressed the importance of having a unique, differentiated strategic position (Magretta, 2012).

The researcher's own experience is that, in general, SMEs' strategies consist of no more detail than (informal) broad strategic themes.

3.5.4. Making strategy measurable

At this stage of Step 1, the high-level strategy will be developed and at least known in broad strategic themes. The challenge now is to articulate the strategy in clear, plain language that consists of measurable goals. Strategy must then be translated so that it becomes measureable (Barr, 2014; (Niven, 2014). Some techniques for achieving this can include:

- *Avoid ambiguous words* such as 'progressive/efficient/holistic', that could mean different things to different people. Objectives should not be composed of words that are not verifiable or vague ideals expressed in ambiguous language so that you will never know if it is achieved. Barr (2014) calls these "Weasel words". Niven (2014) calls this common pitfall in strategy formulation "fluff masquerading as strategy" – you cannot measure it. Strategy has to be expressed in clear specific terms.
- *Define strategy correctly* – do not confuse strategy with inspirational goals or tactics (Niven, 2014), or business as usual (Barr, 2014).
- *Strategy must be goal orientated, not action orientated* – it should not be experessed as a combination of projects and initiatives.

- *Avoid multi-focussed goals* – such as being a low-cost and high quality and reliable producer (Barr, 2014). Rather have two different goals than a combination.
- *Make strategic choices* (Niven, 2014) – avoid focussing on everything important and not only on the few, really strategic goals. It must be something that can be improved, otherwise it is not worth measuring (Barr, 2014).

The outcome of this exercise will be clear, meaurable strategic themes which are the inputs to the next step – creating of objectives.

3.6. STEP 2: OBJECTIVES

In the researcher's experience Step 2 (choosing objectives) in practice overlaps a great deal with Step 3 (mapping) and Step 4 (initiatives). Identifying objectives and building the strategy map is a simultaneous, iterative process. Many initiatives are already identified during this step as well, because it is common for objectives and initiatives to get mixed up when the initial objective identifying process starts (Rohm et al., 2013).

3.6.1. Identifying objectives

The starting point of the process of identifying strategic objectives is with the strategic themes developed in the strategy, Step 1. Rohm et al. (2013) suggested asking: "What should you do really well on a continuous basis to achieve a particular strategic result?", and then placing the answer in the appropriate perspective of the BSC. This question is repeated for each strategic theme and each perspective. From here on these questions will be referred to as the "objective identifying questions" (OIQs).

Rohm et al. (2013) noted that strategy implies moving from your current position to a desired better position in future – a difficult task, and gives the following advice on identifying objectives:

> *When considering possible objectives for your map, ask yourself what problems are holding you back from executing your strategy, and apply the prism of each perpective to your discussion.*

For each strategic theme, the OIQs are asked and the answer placed in the appropriate perspective. The OIQs are also asked for each perspective of the BSC for the specific strategic theme. This process stimulates objective generation. The end result is that the designer will have far too many objectives (easily between 30 and 60), but which is acceptable at this stage of the process.

The next step is to reduce the number of objectives to only the few really strategic ones. Resist choosing the most *urgent* objective in favour of objectives that really matter. Objectives should be strategic, not urgent or important (Kaplan & Norton, 1996; Niven, 2014; Schiemann & Lingle, 1999). Too many objectives will lead to diffused effort without focus. The fewer objectives, the better, which also facilitates the requirement of clarity and simplicity in a PMS (Section 2.5). A number of ten to maximum 15 objectives on the top business level (tier 1) map is suggested by Niven (2014) and

Rohm et al. (2013). Niven (2014) also stated that each objective would lead to 1.5 measures on average.

Its important to ensure that each objective is actually an objective and not an initiative. According to many practitioners (Niven, 2014; Rohm, et al., 2013) and in the researcher's own experience, confusing an objective with an initiative, is one of the challenges when designing a PMS. Initiatives reside mostly in process- and learning perspectives. If an initiative is identified at this stage of the PMS design process, it is "parked" for later attention in Step 4 (initiatives) of the SOMIMAD roadmap.

Eliminate objectives that are essentially the same – which is a common occurrence between strategic themes. Determine if an objective is at the correct level – it must be applicable to the top tier of the business. SMEs will probably only have a top organisational level or maximum one more functional or process level. If an objective belongs to a lower/departemental level, just park it there at this stage.

Other advice given by Rohm et al. (2013) during the objective identifying process include:

- It is sometimes a challenge to decide in which perspective an objective belongs, which can be solved by asking what the predominant purpose is to be achieved.
- Always bear in mind that learning- and process objectives are the drivers of customer and financial objectives.
- Check that objectives are balanced and complete, by ensuring that there are objectives for each strategic theme in all four perspectives.

3.6.2. Choosing objectives for each BSC perspective

There are some generic guidelines to assist in identifying the appropriate objectives in each perspective which will be described in this section (Kaplan & Norton, 2000; Niven, 2014). Kaplan and Norton have also developed a generic strategy map template (Figure 3.9 and shown in Step 3) (mapping) that can be used as a guideline to assist in developing objectives for each perspective.

3.6.2.1. Developing objectives for the financial perspective

For-profit organisations will almost always have "increasing shareholder value" as goal. This is normally done through a delicate balance between two somewhat opposing forces: growth and productivity. This is why the BSC is so effective as it is integrated across all areas of the business (Niven, 2014):

- Income growth: which normally is done by:
  - Selling new products and services; and/or
  - Deepening relationships with existing customers.
- Enhancing productivity: which is normally done by:
  - Reducing current costs; and/or
  - Improving asset utilisation.

The OIQs for the financial perspective are (Kaplan & Norton, 2000; Niven, 2014):

- What do financial stakeholders expect/demand?
- If we were to achieve our vision, what will that mean financially?

The financial objectives should represent an appropriate mix of growth, productivity, and profitability.

3.6.2.2. Developing objectives for the customer perspective

This perspective must give answers to three questions (keeping your strategy in mind):

- Who are our target customers?
- What do they expect from us?; what needs are we serving?
- What is our value proposition in serving them?

The reflection of the differentiated value proposition in the customer perspective is critical (Kaplan & Norton, 2000; Niven, 2014) in BSC development. Businesses will typically differentiate their strategy through one of three generic value propositions:

- Operational excellence; or
- Product leadership; or
- Customer intimacy.

The OIQ for the customer perspective is (Kaplan & Norton, 2004; Niven, 2014; Rohm, et al., 2013):

- If we are to be successful with our strategy, how will we look to our customers?

Customer objectives should demonstrate your value proposition and clearly articulate what customers expect.

3.6.2.3. Developing objectives for the internal process perspective

The top two perspectives (financial and customer) focus on the *what* of value creation:

- What do we hope to achieve for our targeted customers?, and
- What financial rewards await us for successful implementation? (as they appear in the financial perspective).

The bottom two perspectives (processes and learning) focus on the *how:*

- How will we fulfill our value proposition and customer expectation as outlined in the customer perspective, and ultimately achieve the objectives set forth in the financial perspective (Niven, 2014).

The OIQ for the process perspective is:

- Which processes must we excel in to achieve our unique strategy as described by our objectives in the customer perspective?

The internal process perspective will produce a large number of possible objectives and measures, and the temptation will be to capture all existing processes, in the researcher's experience. It is most important to find the really strategically important ones that drive the unique value proposition in the customer perspective. Linkages between internal process objectives and measures, and customer objectives and measures are key. Many strategy maps fail here because too many internal process objectives are chosen or too broad and generic ones are included (Niven, 2014; Rohm, et al., 2013).

Two methods proposed by Niven (2014), that can help to identify the correct internal process objectives, are Porter's *Value chain analysis* (Figure 3.8), and Kaplan and Norton's *internal process clusters.*

Value chain analysis can help to identify the processes that differentiate the business from its competitors. To quote Porter (1998):

> *…in order to achieve competitive advantage, you need to be better at performing the same set of activities as your rivals, or choose to perform a different configuration of activities.*

Kaplan and Norton (2004) identified four high-level *clusters of internal processes* that are applicable to most business ventures, that can also help you define objectives in the process perspective:

- *Operations management processes*: producing and delivering products and services to cutomers;
- *Customer management processes*: establishing and leveraging relationships with customers;
- *Innovation processes*: developing new products, services, processes and relationships;
- *Regulatory and social processes*: conforming to regulations and societal expectations, building stronger communities.

The key issue is whether you have emphasised the differentiating aspects of your value chain. The unique activities that can distinguish you and drive your value proposition should be the ones you focus on in this perspective (Niven, 2014).

3.6.2.4. Developing objectives for the learning and growth perspective

Kaplan and Norton (2004) identified three areas of intangible assets:

- Human capital: aligning people with strategy;
- Information capital: aligning information and technology with strategy;
- Organisational capital: creating the climate for growth and change.

The OIQs for the learning perspective is:

> *Which skills, capabilities and capacities must we excel in to satisfy the requirements of the critical processes in the process perspective?*

The aim is to isolate the key intangibles that will drive process excellence and ensure the achievement of customer and financial objectives.

3.7. STEP 3: MAPPING

The 'mapping' step entails the constructing of a strategy map which is a one-page graphic demonstration of an organisation's strategy. It visualises the causal relationships among strategic objectives (Kaplan & Norton, 2004) and describes the process of value creation.

As stated in Section 3.6, the strategy map is created simultaneously with the objective identifying process. The map contains only objectives – not measures.

A strategy map is about focus as it contains only the few things management has to focus on to make the biggest difference and drive change; it is not an operational map. It contains the answer to the question: *"What do you want to accomplish?"* (Jones, 2011).

The main function of a strategy map is to communicate an organisation's strategy to employees in a clear, concise manner. It tells the story of the company's strategy; how objectives should weave together in cause-effect relationship to see how investments in intangibles yield improvement in key processes, which drive customer-buying decisions and ultimately, result in improved financial results (Niven, 2014).

Kaplan and Norton (2008) developed a generic strategy map template as shown in Figure 3.9 below. Although it can be used as a general guideline when a business develops its own, it is important to remember that every business's strategy map should be unique, because its strategy should be unique.

Niven's (2014) view is that cause-and-effect linkages between individual objectives are only important between internal processes and customer outcomes, and only a general linkage between the other two perspectives. Other authors like Rohm et al. (2013) however emphasised cause-and-effect linkages for every individual objective. The cause-and-effect linkage between each perspective's objectives in general, that forms the value creation process of a business, is described by Kaplan and Norton (2008) as follows:

> *The ultimate goal of a business is to create long-term value for shareholders. Business value is created by satisfying a customer value proposition. Internal processes create and deliver the value that satisfies customers and contribute to the financial perspective's productivity objectives. Intangible assets (people, technology, culture) drive performance improvements in the critical processes that deliver value to customers and shareholders.*

In the researcher's opinion, individual linkages between objectives, rather than general linkages, give more focus to the strategy map and make it more unique for a specific business.

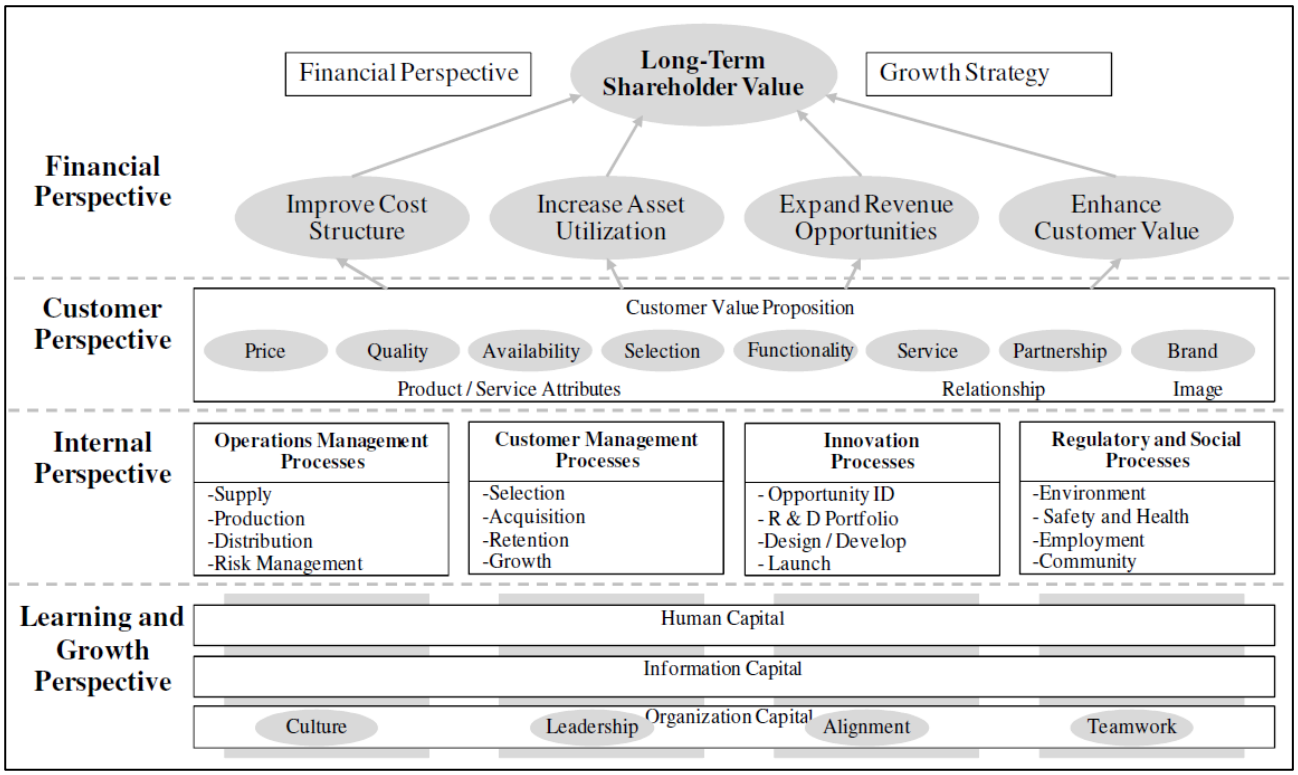


Figure 3.9: Generic strategy map

Source: Kaplan and Norton, 2008.

The strategy map is constructed by firstly, allocating all the objectives, that have been created so far, to a specific perspective. Secondly, objectives are analysed for cause-and-effect and linked appropriately.

3.8. STEP 4: INITIATIVES

Although the initiatives step logically should be the final step in the implementation process (Niven, 2014), the researcher can confirm through practical experience during the course of this study, that objectives are frequently and easily confused with initiatives during the process of identifying objectives. The result, as noted earlier (Section 3.6.1), is that during the process of choosing objectives, many initiatives are already identified as a by-product. Consequently, in practice, the initiatives step overlaps to a degree with the objectives and mapping steps and therefore, starts much earlier.

Many initiatives will be created during the implementation process and will have to be prioritised to fit available resources, potential impact on strategy execution, time frame, etc (Niven, 2014).

3.9. STEP 5: MEASURES AND TARGETS

Designing of measures has been discussed in general in Sections 2.3.5 and 2.3.7, therefore, only points pertaining to a PMS context are highlighted here.

This step is about designing measures and setting targets for each objective. Up to now, the PMS implementation process was primarily focussed on determining *what* to measure. Measures focus on *how* to measure (objectives).

From a PMS perspective, measures are intended to provide evidence of the degree to which an objective has been achieved as compared to a target. Niven (2014) commented as follows:

> *Setting out objectives and finalizing the strategy map will not automatically lead to strategy execution. What is needed, is a method to assess whether or not you are actually achieving the objectives and advancing towards execution, and that is where performance measures fit in.*
>
> *Performance measures are standards used to evaluate and communicate performance against expected results. Targets represent the desired result of a performance measure.*

The requirement of all measures on the scorecard is that they should be *faithful translations* of strategic objectives, which in turn have been translated from your strategy (Niven, 2014). It is about finding the best performance measures that provide evidence of your unique goals (Barr, 2014).

Authors in the PMS field have all emphasised the importance of very clear objectives to enable the supportive measures (Barr, 2014; Niven, 2014; Rohm et al., 2013). It will therefore be necessary to clarify some objectives that are too vague to state what is exactly meant (Barr, 2014; Niven, 2014). Many objectives can present a challenge to find correct supporting measures, especially when it comes to intangibles. According to Niven (2014), objectives in especially the learning and growth perspective can often be “touchy-feely”.

Common advice to assist in finding an appropriate measure, is to visualise the successful or intended outcome and ask what the evidence would be that the desired outcome had been achieved. Many of these objectives entail a behaviour change in people, so one should think about any observable signs that would be a result of the change (Barr, 2014; Niven, 2014; Rohm et al., 2013).

Other important points noted by Niven (2014) and Rohm et al. (2013) about finding the correct measures are:

- Check for potential of driving unintended outcomes by bringing in counter-balancing measures.
- Ensure there are leading as well as lagging indicators for each objective. Always ask what drives a particular measure to help identify the leading measure.
- Limit the number to the vital few. Niven claims that there will be an average of 1.5 measures per objective.

With each measure a corresponding target should now be set.

3.10. STEP 6: ALIGNMENT

An important aspect of a PMS is to align the effort of all departments (and ideally employees) to the company strategy, which is the purpose of the alignment step in the PMS implementation process (Niven, 2014; Rohm et al., 2013).

3.10.1. The cascading proces

Before starting, there are four problems to solve, according to Niven (2014).

The first problem is to identify the lower-level units to which the corporate-level scorecard and strategy map is going to be cascaded. Rohm et al. (2013) suggested three different approaches to cascading the corporate-level scorecard throughout the organisation:

- *by organisational structure*: according to existing departments, as in the organisation chart;
- *by function*: according to work-related units, such as production or support units; or
- *by geography*: according to organisation per location, such as provincial regions.

The second problem is to decide if you are going to cascade strategy maps and scorecards, or just scorecards. According to Niven (2014), there is no clear majority of companies or practitioners that lean either way. Niven (2014), as well as Rohm et al. (2013) suggested cascading both.

In the researcher's experience, it will depend largely on the size of the organisation; the smaller the organisation and the fewer the management levels, the less need for the strategy map to be cascaded as well. In small organisations, everyone is much closer to the top which makes communication, which is the function of the strategy map, a great deal easier.

Thirdly, should the same four perspectives be used for each scorecard – or should one allow every unit to have their own perspective descriptions or even add different ones? The general recommendation is to keep the same perspective descriptions throughout to avoid confusion of terminology (Niven, 2014).

Fourthly, you should use corporate-level scorecard objectives and measures as far as possible. Only in extreme cases allow additional objectives and measures to be created. Otherwise the quantity can quickly grow out of hand – like a pyramid scheme (Niven, 2014).

The top-level strategy map and scorecard is the starting point of the process, and it is therefore of the utmost importance that everybody understands it. It contains the objectives and measures that are linked through cause-and-effect, which tells the organisation's strategic story. Every map created at lower levels therefore should link back to the corporate map (Rohm et al., 2013). Rohm et al. (2013) illustrated the alignment logic of the cascading process below in Figure 3.10.

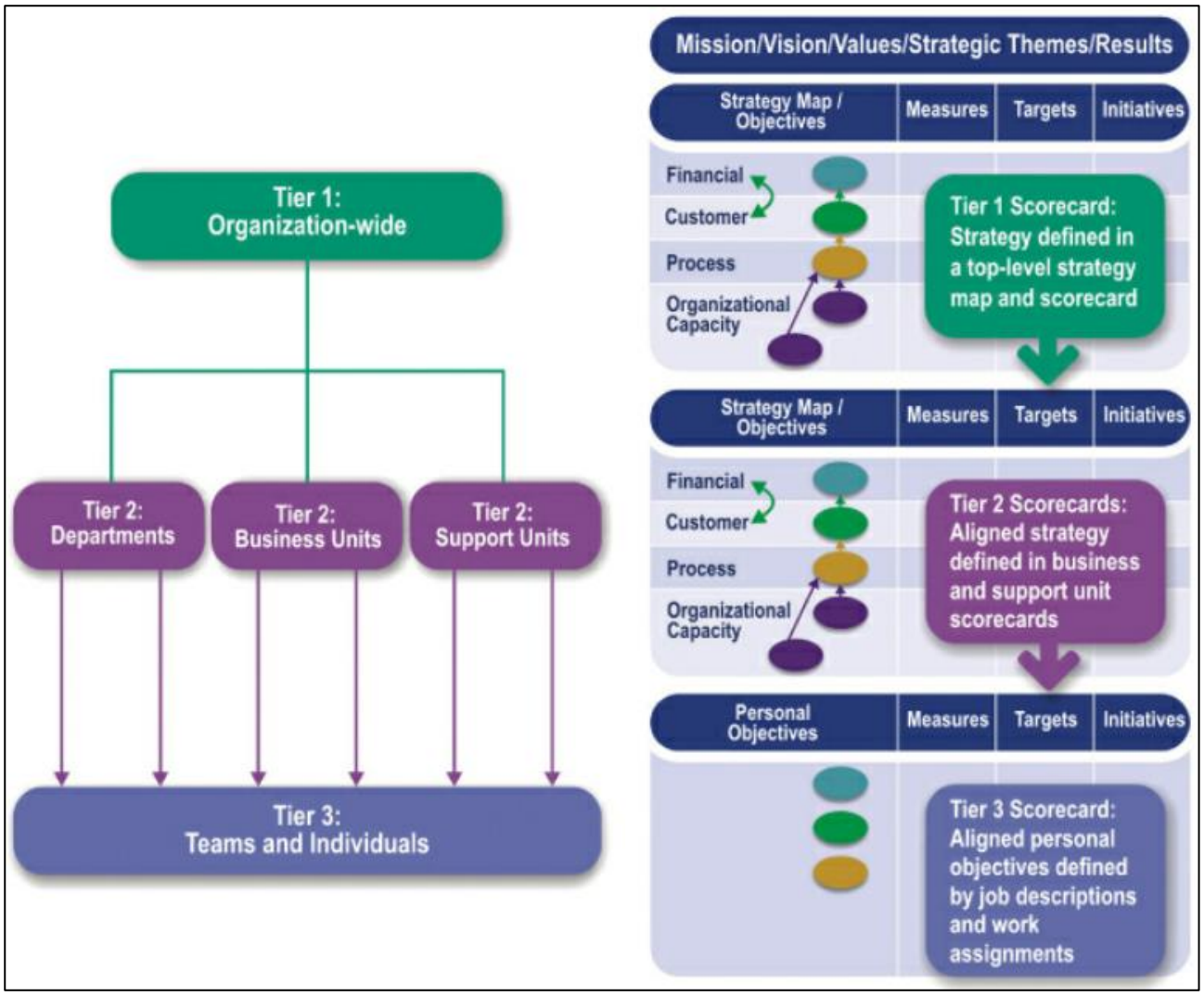


Figure 3.10: Alignment logic for a typical cascading process

Source: Rohm et al., 2013.

Cascading starts by studying the top-level map and asking (Niven, 2014): “Which of these objectives can we influence?” The answers to that question will form the basis of the new strategy map and scorecard.

It is unlikely that a group will be able to exert influence on every objective of the level above it. This is logical, because an organisation consists of a combination of different and complementary skills and functions. The rule is to focus on the objectives that you can really influence (Niven, 2014).

Once the unit has identified its objectives, the measures for each objective must be developed. Ideally, the same measures as the top level should be used, but it is not necessary. The same process is then repeated to develop a strategy map and scorecards for the next lower level. Support units differ slightly from business units, because their customer is the rest of the organisation; for example: production will be the customer of purchasing or human resources.

3.10.2. Personal scorecards

The cascading process can be repeated right down to personal objectives for each worker in a personal scorecard (Figure 3.10). This aligns every employee's job description and goals to those of the organisation. Personal scorecards also provide a much better basis for employee performance reviews (Niven, 2014).

3.11. STEP 7: DOCUMENTATION

Niven (2014) and Rohm et al. (2013) strongly recommended detailed documentation of objectives and measures already at their development stage, to make sure all the info discussed at this time is not lost or forgotten at a later stage. Niven (2014) suggested a comprehensive description of a measure in a "performance measurement data dictionary", which is set out in four categories, as listed below.

i) Measure background

- Perspective: shows the perspective to which it belongs;
- Number/Name: a brief, unique description and numbering for possible computerisation later;
- Owner: the person who will be held accountable for the result;
- Strategy: the strategic theme that this particular measure will influence;
- Objective: the objective that this measure represents;
- Description: a thorough but concise decription of what this measure is and why it is critical.

ii) Measure characteristics

- Lead/Lag: indicates if the measure is a result/outcome or performance driver;
- Frequency: the reporting interval, i.e weekly, monthly;
- Unit type: unit of measure how the measure will be expressed;
- Polarity: indicates whether high values represent good or bad performance.

iii) Calculation and data specifications

- Formula: the specific elements for calculation of the measure;
- Data source: where the information for measurement will be derived from;
- Data quality: the condition of the data that is expected. It is important for interpreting the results.
- Data collector: The person responsible for providing the performance data, who might not necessarily be the same as the owner of the measure.

iv) Performance Information

- Baseline: the current/normal performance for the measure;
- Target: as soon as it is available, the target for the measure is shown;
- Target rationale: logic of how the target was derived;
- Initiatives: naming of current or planned initiatives associated with the measure.

3.12. CHAPTER CONCLUSION

In this chapter, the researcher drew two conclusions from the literature study of the PMS implementation process:

- It is evident that implementing a PMS in a business is a costly, very resource-intensive process with a huge impact on management resources (Carlyle, 2013; Garengo et al., 2005; Hudson, Smart & Bourne, 2000; Pekkola, Saunila & Rantanen, 2016).
- It is clear that by far the majority (if not all) businesses will need the assistance of specialised external consultants because of the complexity of the process. This observation was emphasised by several authors (Brem et al., 2008; Carlyle, 2013; Fernandes et al., 2006; Mabhungu, 2017).

CHAPTER 4:
SMES AND PERFORMANCE MEASUREMENT REQUIREMENTS

In this chapter the unique characteristics of SMEs are highlighted and their differences in comparison to large businesses. Reasons for their high failure rate are investigated by studying the relevant literature. The business environment of SMEs in SA is studied in an attempt to add a South African perspective regarding PMSs.

The requirements for an ideal SME PMS framework in a SA context are then established through conclusions by the researcher from the literature. This is the key objective of this chapter. These requirements are used as a basis for comparison of existing frameworks in Chapter 5 and the development of the proposed PMS for SMEs in Chapter 6.

4.1. SME CHARACTERISTICS INTERNATIONALLY

SMEs have attributes that differentiate them from large businessess. A survey of some international journals and other relevant literature (Ates et al., 2013; Basuony, 2014; Garengo et al., 2005; Hudson, Smart & Bourne 2001; Madsen, 2015; Niven, 2014; Taticchi et al., 2008; Welsh & White, 1981) highlighted the following characteristics:

- Personalised management, with little devolution of authority;
- Management processes linked to personality and experience of owner/key manager;
- Decision making most likely driven by personal lifestyle needs of owner rather than, for example, return on investment (ROI);
- Lack of management skills and formal business training;
- Focus on operational aspects and short-term orientation: a view that only technical excellence really determines success;
- Reactive, fire-fighting mentality (not pro-active);
- Management systems and processes are informal and personal /or vague;
- Strategic processes are informal, dynamic and not structured or lacking (absence of dedicated resources, owner/manager fulfills dual roles of operational and strategic responsibilities);
- Flat, flexible and non-bureaucratic organisation structure;
- Lack of management- and human resources;
- Lack of financial resources/cash flow to absorb shocks;
- Lack of training or limited investment in training – resulting in entrepreneurs rarely expanding business beyond what they can control;
- Learning most likely through tacit knowledge rather than explicit – presenting problems with succession and knowledge transfer;
- Failure rate very high;
- Growth normally much more uncontrolled than in bigger business;
- High innovatory potential.

According to OECD findings (1997), there is general concensus that the level of formal education of both owner/managers and workers in SMEs are lower or inferior to those in bigger companies. SMEs are universally characterised by a shortage of management resources. During an Australian research project on SMEs, Dalrymple (2004) noted:

> *The process of interacting with the owner manager acknowledged that time and management effort are the most-scarce resources in the SME environment. Thus, all planned activity was designed to take place in approximately 2-hour time windows. This is the quantum of time, in the researcher's experience, that the SME manager can dedicate to interactions related to 'business infrastructure' activity.*

In this researcher's own experience, Dalrymple's observation could not be more true. The *negative* characteristics can be summed up as a lack of skills and resources: Lack of management skills; lack of management resources; and lack of financial resources. The *positive* characteristics can be summed up as: Agility and innovativeness.

4.2. SMES IN THE SA CONTEXT

There should be no reason to believe that these international findings will not be applicable to SA SMEs too. In addition, there are some facts and circumstances that characterise the SA context for SMEs, that need to be highlighted in this study.

4.2.1. Critical skills shortages and uneducated workforce

Problems with skills shortages is a common theme in the SME sector (BER, 2016; Herrington et al., 2014; Olawale & Garwe, 2010). Excessive supply of unskilled labour, workers with obsolete qualifications, and labour shortages in new skilled jobs are findings in various reports that describe the state of the South African labour market. The SA workforce is predominantly low-skilled (DTI-RSA, 2008; SBP Business Environment Specialists, 2015).

To illustrate how dire the education levels are in South Africa, the SA government's Education Department released its Annual National Assessments (ANA) of 2014 (DBE-RSA, 2014). The report stated the following shocking statistics about grade 9 pupils' literacy and numeracy levels:

- Average literacy (in home language): 48%;
- Average numeracy: 11%; and
- Only 3% achieved 50% or more in mathematics.

South Africa also compares very badly with the rest of the world (even with the rest of Africa) in this regard. A report by the OECD ranked South Africa's maths and science education second-last out of 76 countries (Businesstech, 2015a). The World Education Forum (WEF) Global Information Technology Report 2015 ranked it last out of 143 countries and the overall quality of South Africa's education system 139th out of 143 (WEF, 2015).

Spaull (2013) noted that:

> *…most South African pupils cannot read, write and compute at grade-appropriate levels, with large proportions being functionally illiterate and innumerate.*

These facts underline that the SA labour force is seriously lacking even in basic literacy and numeracy education.

4.2.2. SMEs are mostly small and micro businesses

The Small Business Institute (SBI) released a recent report (SBI, 2018) which shows that 98 percent of all economically active enterprises in SA fall within the definition of a SME. The high percentage SMEs correlates with other countries, with OECD member countries having more than 95 percent of enterprises classified as SMEs (OECD, 1997).

The detailed distribution of businesses according to size depicted in Figure 4.1 shows that in SA, 88 percent of businesses are classified as either small or micro – employing fewer than 50 people.

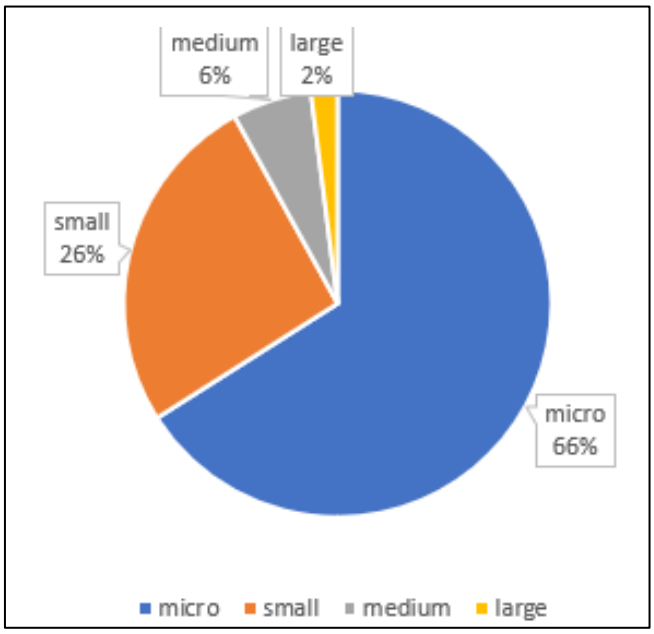


Figure 4.1: Proportion of firms in SA by size in 2016

Source: The Small Business Institute, 2018: 5.

4.2.3. SA SMEs have an extremely high failure rate

As noted in Section 1.2.3, SA SMEs have one of the highest failure rates in the world. The probability of a new SME surviving to the established phase is less likely than in any other GEM sampled country (Olawale & Garwe, 2010).

4.2.4. SMEs are burdened by inept bureaucracy and over-regulation

Numerous research reports have found that South African SMEs have to operate in an environment of excessive bureaucratic regulation and red tape, with dysfunctional government and poor service delivery (BER, 2016; Herrington et al., 2014; Olawale & Garwe, 2010).

This puts an unnecessary burden on already very scarce management resources, which constrains SMEs' growth.The DTI found that "40 percent of SMEs name the regulatory burden placed by the state on SA business as a constraint on growth" (DTI-RSA, 2008). Both the GEM South Africa report (Herrington et al., 2014) and the WEF 2014/2015 Global Competitiveness Report (BER, 2016) listed "government bureaucracy as one of the major obstacles to entrepreneurial and business activity in South Africa".

4.2.5. Hostile unions and rigid labour regulations

The BER (2016) listed onerous labour laws as a constraint, as indeed labour regulation in SA is burdensome (Olawale & Garwe, 2010). It is very difficult for SMEs to discipline employees and is a deterrent for new employment. Unions generally take unrealistic positions when negotiating for better wages – with a 50 percent increase as opening demand not uncommon. Unions seem to be driven by the desire for higher membership numbers, rather than the overall good of the workforce that they represent – fuelling unrealistic expectations as a recruitment drive. These views are the typical experience of business owners in SA in the researcher's interaction with fellow business owners.

4.2.6. Many SME owners lack the skills to run a business

The very high unemployment rate leads to more people starting businesses as a last option – which was found to be almost 70 percent among informal businesses in 2011 (Statistics South Africa, 2014). The 2015/2016 GEM Global Report, which leans more towards the formal sector, show this to be 30 percent, which is about average for Africa. In highly-developed countries such as Sweden, Switzerland and Luxembourgh it is as low as ten percent (Kelly, Singer & Herrington, 2016).

This means that many SME owners are not equipped with the skills of running a business (Statistics South Africa, 2014). These SME owners are called "necessity entrepreneurs", who often are characterised by a lack of skills and resources (DTI-RSA, 2008; Kelly et al., 2016). The ideal situation is to have more "opportunity entrepreneurs"; these are people who went into business as a result of finding a niche in the market.

South Africa's opportunity index is 3.47 percent compared to an average of 6.82 percent for all countries according to a GEM 2006 survey (DTI-RSA, 2008). The index proves that an abnormal percentage of SMEs have started because of the survival needs of the owner, and are therefore managed by necessity entrepreneurs with inadequate management and business skills. SA is ranked 50th out of 60 countries for opportunity entrepreneurs (Kelly et al., 2016). Entrepreneurial dynamism or capacity is one of the most underdeveloped qualities amongst SA entrepreneurs according to the GEM 2006 report (DTI-RSA, 2008). Entrepreneurial dynamism or capacity consists

of the skills that are required to make a success of a business, and can be divided into four categories: personal-, technical-, operational- and management skills (DTI-RSA, 2008). Due to these facts, it is no surprise that SA has such a high SME failure rate (DTI-RSA, 2008; Fatoki, 2014).

4.2.7. Language and cultural differences

In a SA business environment, and Africa in general (Khomba, 2011), there are specific circumstances that need to be addressed, that are not prevalent in a first-world, Western economy. One of these is huge cultural differences. African culture, for example, puts much more emphasis on the interests of the community, whereas Western business culture emphasises maximising of profit and shareholders' wealth. In Africa, the well known *Ubuntu* principal of "humanity towards others", is essentially socialist and humanist in nature (Khomba, 2011). In his PhD study, Khomba (2011) proposed, amongst other, an adaption of Western management systems to accommodate differences between African and Western culture in decision making and business.

Table 4.1: Percentage of languages spoken by household members inside and outside the household by population group, 2018

	Black African		Coloured		Indian/Asian		White		South Africa	
	Inside	Outside	Inside	Outside	Inside	Outside	Inside	Outside	Inside	Outside
Afrikaans	0,9	1,0	77,4	68,8	1,3	1,5	61,2	37,2	12,2	9,7
English	1,6	8,6	20,1	28,3	92,1	95,8	36,3	61,0	8,1	16,6
IsiNdebele	1,9	1,6	0,0	0,0	0,3	0,2	0,3	0,1	1,6	1,3
IsiXhosa	18,2	15,6	1,1	1,3	0,4	0,0	0,1	0,1	14,8	12,8
IsiZulu	31,1	30,8	0,3	0,3	0,9	1,0	0,5	0,5	25,3	25,1
Khoi, Nama and San languages	0,1	0,1	0,0	0,0	0,0	0,0	0,0	0,0	0,1	0,1
Sepedi	12,4	12,0	0,3	0,2	0,5	0,2	0,1	0,3	10,1	9,7
Sesotho	9,7	9,6	0,1	0,2	0,1	0,3	0,0	0,1	7,9	7,8
Setswana	11,1	11,5	0,7	0,8	0,2	0,2	0,4	0,4	9,1	9,4
Sign Language	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
SiSwati	3,5	3,2	0,0	0,0	0,0	0,0	0,0	0,0	2,8	2,6
Tshivenda	3,1	2,7	0,0	0,0	0,2	0,0	0,0	0,0	2,5	2,2
Xitsonga	4,4	2,9	0,0	0,1	0,1	0,1	0,0	0,0	3,6	2,4
Other	2,1	0,5	0,1	0,0	4,0	0,7	1,1	0,5	1,9	0,5
Total Percentage	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0
Total (Thousands)	46 307	46 135	4 961	4 930	1 430	1 426	4 442	4 420	57 143	56 914

Source: Statistics South Africa, 2018.

South Africa has 11 official languages with none being dominant, as Table 4.1 illustrates. Whichever way the data in Table 4.1 is interpreted, it is clear that a large percentage of the SA workforce finds it difficult to communicate with each other.

If one also takes into account the low education levels in SA and that SMEs must compete with big business and government to recruit from the same labour pool, it is clear that communication between employees (predominantly black) and management (predominantly white), must be a huge problem in SA SMEs. This is certainly the experience of the researcher with regards to the construction and manufacturing sector.

4.2.8. High labour intensity

SMEs have far less access to financing, and this is one of their biggest obstacles (BER, 2016; DTI-RSA, 2008; SAICA, 2015; World Bank, 2011). This shortage of financing contributes to SMEs in general having to choose less capital intensive methods than larger businesses, resulting in higher labour-intensity. The high labour-intensity of South African SMEs is confirmed by many relevant sources (Abor & Quartey, 2010; Kongolo, 2010; SBP Business Environment Specialists, 2015). Research by the Bureau for Economic Research (2016) showed that South African SMEs operate mostly in the following sectors (Table 4.2):

- Trade and Accommodation;
- Community- and personal services;
- Construction;
- Finance and Business services;
- Manufacturing.

Of these five industry sectors, three are considered as having high or very high labour intensity (Tregenna, 2010). Table 4.2 illustrates the degree of labour intensity per SME industry sector.

The SA government's SME development programmes, such as the Expanded Public Works Programme (EPWP), also promote labour intensity (DTI-RSA, 2008). These facts amplify the SME sector's importance as job creator in South Africa.

Table 4.2: Labour intensity of SMEs per industry sector

Industry sector in which SMEs operate (a)		Number of SMEs as % of total (a)	Degree of sector labour intensity (b)
		100%	
Top-5	Trade & Accommodation	41.9%	very high
	Community, personal services	13.6%	
	Construction	13.3%	high
	Finance& business services	12.1%	
	Manufacturing	9.0%	very high
Bottom-5	Transport & Construction	5.9%	
	Agriculture	2.5%	high
	Other	1.3%	
	Electricity,gas,water	0.3%	very low
	Mining	0.1%	very low

Source: Researcher's compilation with data from (a) BER, 2016; (b) Tregenna, 2010.

4.2.9. Biggest employer of the very lowest skilled labour alleviates poverty

Besides being more labour intensive in general, SMEs employ a higher percentage unskilled and semi-skilled workers than big business (Kongolo, 2010). Especially in rural areas, SMEs are job creators (Kongolo, 2010; World Bank, 2011) and provide a living to the poorest of the poor. Many of the very lowest skilled people work in the SME sector (SBP Business Environment Specialists, 2015):

> *Smaller firms employ the type of people whose labour market characteristics mirror those of the unemployed – it provides an important source of employment for the most marginalised in the SA labour market.*

This fact again compounds the importance of the SME sector as job creator in South Africa with its extremely high unemployment rate and over-supply of unskilled labour.

4.2.10. SMEs cannot compete for skilled labour

Although it is an international phenomenon that smaller business' employees in general have inferior education and skill levels compared to those of bigger business (OECD, 1997), the situation in South Africa needs to be highlighted. It was shown in the previous section how small the skills pool already is in South Africa. SMEs have to compete against big business as well as the public sector for the small number of available semi-skilled and skilled workers. It is a competition that they cannot possibly win.

Bigger companies worldwide pay higher average wages than SMEs (OECD, 1997), and the burgeoning public sector in SA pays even substantially more. According to recent research by the Development Policy Research Unit of the University of Cape Town (Businesstech, 2016), the average real wage of a public sector worker is R11 668 versus R7 822 for a private sector worker; this is 49 percent more in the public than private sector.

A small sample shows that public sector wages seem to be higher than the private sector in general in most countries, but not close to the margin in SA. A quick internet search on three countries showed the following wage margins in favour of their public sectors:

- Kenya about 22 percent (Naibuzz, 2014);
- United Kingdom about 10 percent (Edwards, 2017);
- Canada about 10 percent (Lammam, Palacios, Ren, & Clemens, 2015).

The researcher's conclusion is that SMEs have to draw their workforce from the least literate and innumerate and (in certain categories) almost unemployable remains of the labour pool. This should be especially so for the (more labour intensive) manufacturing, construction and agricultural sector. (Mining is not included, because it is generally big business). SMEs basically have to recruit from a largely illiterate and innumerate workforce.

4.2.11. Conclusion: SA context

All the factors highlighted contribute to SA SME owners having more than usual distractions that result in them having less time to focus on their business. The aspects that the SA context brings to SMEs, are summarised below:

- Critical skills shortages and uneducated workforce;
- Low levels of basic literacy and numeracy
- Most SMEs are classified as “small” or smaller;
- SA SMEs have an abnormally high failure rate;
- Burdened by over-regulation and inept bureaucracy;
- Hostile unions and rigid labour laws;
- Many SME owners lack the skills to run a business;
- Language and culture differences leading to communication difficulties;
- High level of labour intensity in SMEs;
- Biggest employers of the very lowest skilled labour;
- Difficulty in competing for skilled labour.

The conclusion is that the SA context for SMEs is characterised by a lack of human capital, an abnormal burden on management resources, and a difficult labour environment. The importance of a higher success rate among SA SMEs is magnified by their higher labour intensity in general and higher absorption of unskilled labour.

4.3. REASONS WHY SMES FAIL

4.3.1. Overview

As pointed out in Chapter 1, SMEs around the world suffer from an extremely high failure rate. The unique characteristics of SMEs are also in many cases the very causes of SME failure. The following are some of the causes quoted commonly in international journals on the subject of SME failure:

- *Poor management skills* (Andersen, Cobbold, & Lawrie, 2001; Basuony, 2014; Collis & Jarvis, 2002; OECD, 1997; Olawale & Garwe, 2010; Taticchi, et al., 2008). This results in: owner/manager directing everything/ over-dependence on owner for management/ lack of delegation/inability to plan and control (Basuony, 2014; Fatoki, 2014; Gerber, 2016; Olawale & Garwe, 2010; Taticchi, et al., 2008).
- *Poor business skills and knowledge of owner/manager* (Andersen, et al., 2001; Basuony, 2014; DTI: RSA, 2008; OECD, 1997).
- *Poor financial control and record keeping* (Collis & Jarvis, 2002; Garengo & Sharma 2014; Taticchi, et al., 2008).
- *Scarcity of financial resources* (Garengo et al., 2005; Hudson, Smart & Bourne, 2001; OECD, 1997; Olawale & Garwe, 2010; Welsh & White, 1981).

- Scarcity of management resources (Bahri, St-Pierre & Sakka, 2017; Garengo et al., 2005; Hudson, Smart & Bourne, 2001; Welsh & White, 1981).
- *Rapidly-changing external environment*: market, competition, recession (Basuony, 2014; Pekkola et al., 2016).
- *Risk when growing* to additional management layer to the owner/key manager (Andersen et al., 2001; Fatoki, 2014).
- *Lack of strategic planning* (Andersen et al., 2001; Garengo & Biazzo, 2012; Niven 2014).
- *Liquidity and poor cash flow management*, *planning* (Collis & Jarvis, 2002; Gray et al., 2012; Mazzarol, 2010; Welsh & White, 1981).

According to the OECD (1997), the competitiveness of an individual SME is directly related to the human capital of the owner/manager. As discussed in Section 4.2.6, SA SME owners fare very poor in this regard. It is therefore not surprising that SMEs have such a high failure rate in SA.

Poor management skills of the owners which result in poor management systems and business processes are the main cause of failure highlighted by many consultants in the SME field (Carpenter, 2017; Gerber, 2016; Harnish, 2014; Hedley, 2009; Warrillow, 2010).

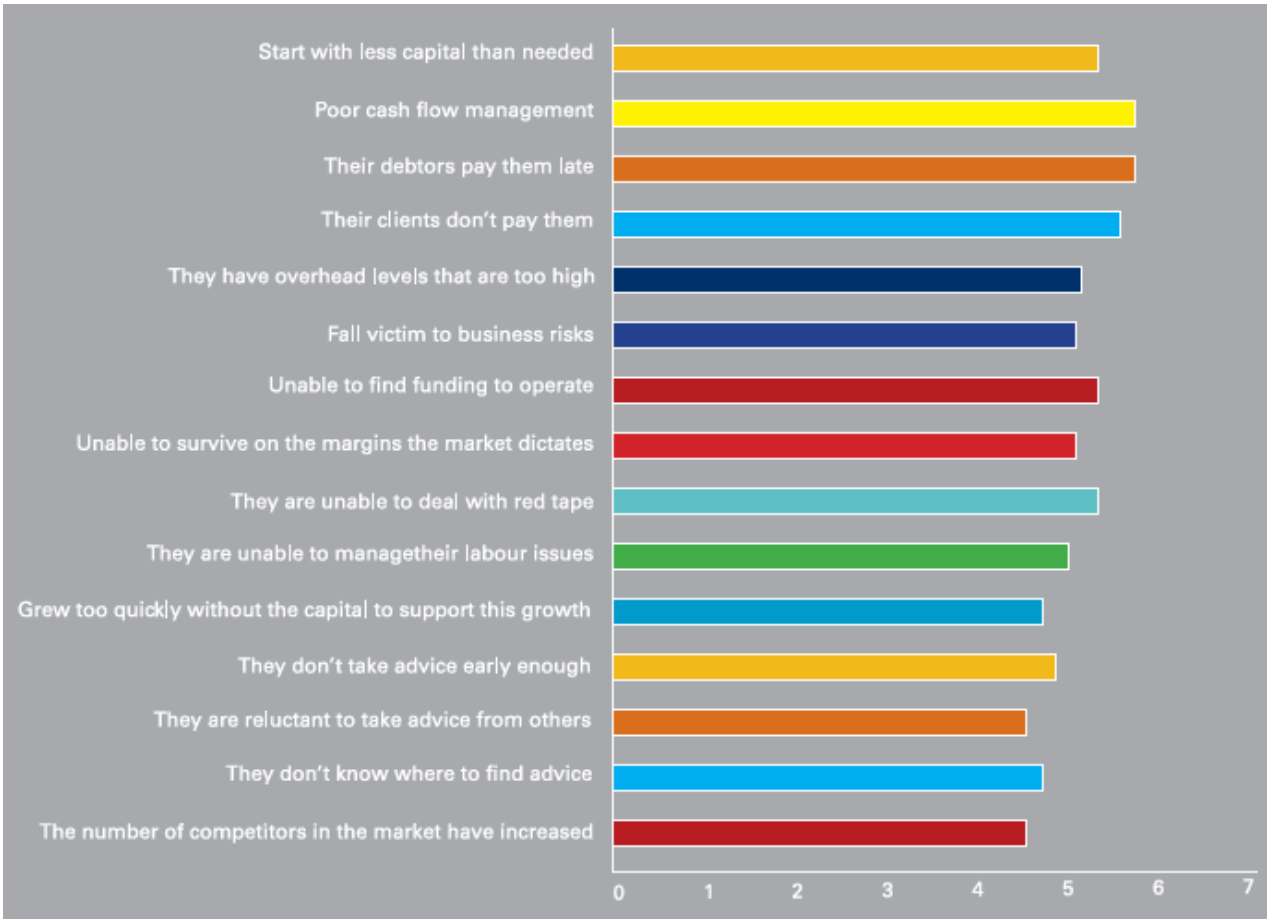
The same advice to SMEs is repeated in different words over-and-over:

> *Building and systemising the management and business processes is the key to SME success.*

According to Gerber (2016), the main reason entrepeneurs fail, is due to a lack of formal systems and training. Gerber encourageous entrepreneurs to think of their businesses as the first prototype of many to follow – basically think of it in terms of a franchise. Gerber emphasised that the systems must set the owner/manager free to focus on key issues, like strategy development and execution. According to Gerber, SME owners must be able to focus on equity building activities in their business – not income. Basuony (2014) stated that SME owner/managers direct all the operations of the business themselves. SME owners tend to get tied up in technical issues and find it difficult to delegate. Gerber (2001) coined the very powerful phrase, that any SME owner that wants to grow, should always remember: “You should work **on** your business, not **in** your business”.

This is exactly what popular SME consultants, such as George Hedley (2009) and Sam Carpenter (2017), and many successful SME owners preach:

> *“Successful entrepreneurs don’t do the work. They act like leaders.”*
>
> *“They replace themselves with operational systems.”*



(1: least important; 7: most important)

Figure 4.2 : The main reasons SMEs fail

Source: SAICA, 2015.

Besides poor management skills, the DTI also emphasised the lack of training of personnel as a prominent cause of failure (DTI: RSA, 2008). Locally the South African Institute of Chartered Accountants (SAICA) published a recent report (SAICA, 2015) which found that *cash flow related reasons* are the most important cause of failure (Figure 4.2). The report stated that effectively *poor financial planning and control* is at the heart of many of SMEs problems. If one studies the findings, it is clear too that *poor management skills* in general can be added as another core reason for failure.

The GEM South Africa 2014 report (Herrington et al., 2014) (Table 4.3) shows that *poor profitability* is a growing reason for SME termination in South Africa. This alarming trend rose from 11.4 percent in 2006 to 42.5 percent in 2014 (Table 4.3).

Table 4.3: Reasons for SME business exit in South Africa, 2006-2014 (expressed as a percentage)

	2006	2008	2009	2010	2011	2012	2013	2014	Ave SSA
Opportunity to sell	11,8	6,7	3,5	1,4	2,0	1,3	2,8	5,3	5,8
Business not profitable	11,4	31,3	26,0	24,4	32,6	28,7	36,4	42,5	27,7
Problems getting finance	32,1	29,0	27,2	39,1	24,0	28,2	28,9	19,4	20,8
Another job or business opportunity	4,3	6,8	6,0	0,9	6,0	5,4	2,9	3,2	6,9
Exit was planned in advance	2,7	1,0	0,0	0,0	0,0	0,8	1,8	0,5	3,4
Retirement	23,1	0,0	0,0	2,1	1,9	0,0	0,1	0	1,2
Personal reasons	14,7	21,7	21,0	15,5	15,6	19,8	23,2	19,9	16,9
Incident	0,9	3,5	6,4	1,9	0,4	0,6	3,9	9,21	7,08

Source: Herrington et al., 2014.

The Bureau for Economic Research (2016) also highlighted *lack of access to finance, skills shortage* and an *uneducated workforce* as causes of SME failure in SA. Fatoki (2014) cited an interesting point that, whereas SME owners are very likely to name lack of financing as the main cause of failure, credit providers do not agree – they too name *lack of management skills* to run a business as the main cause of failure.

It is therefore almost as if SME owners do not seem to know what their most important risk is.

4.3.2. Summary of reasons for failure

The list below shows a summary of reasons mentioned in literature for SME failure. It is clear that most causes of failure are management and finance related.

- Low profitability – recently becoming more important in SA;
- Limited access to financing;
- Lack of financial resources;
- Poor cash flow and liquidity;
- Lack of management skills to run a business/ entrepreneurial, lack of formal business training;
- Owner controlled, -dominated and -dependent;
- Poor management in general;
- Skills shortage and uneducated workforce;
- Lack of management resources;
- Lack of structure and formal systems; and
- Lack of strategic planning.

4.4. DEFINITION OF SME PERFORMANCE/SUCCESS

There does not seem to be a universal definition of what SME owners define as success (Gray et al., 2012). SME owners will offer many definitions, such as:

- Financial independence;
- Supporting owner's desired lifestyle;
- Growth to a certain size; and
- A large number of employees.

As mentioned in Section 2.2, the view of performance in SMEs leans towards good cash flow and survival, whereas big businesses strive for maximum ROI to its shareholders. It is a general view among researchers that enough cash-on-hand is a perennial problem for most SMEs, and having enough cash could therefore be seen as an important measure of success (Garengo et al., 2005; Hudson, Smart & Bourne, 2001; Jarvis, Curran, Kitching, & Lightfoot, 1999; Mazzarol, 2010; Welsh & White, 1981).

The actual success here is survival (to stay in business) as a business must have adequate liquidity to survive (Collis & Jarvis, 2002). The findings of a UK study (Jarvis et al., 1999) echoed this and showed that profit was low on the priority list of SME owners – they were rather concerned by cash flow – "money in the bank" , business survival and stability. SMEs also cannot take into account all the stakeholders that a big company does – it must focus on its main objective to survive in the first instance (Garengo, et al., 2005; Taticchi, et al., 2008).

In a Canadian study (Raymond et al., 2011), the performance dimension seen by most SME owner/managers as the strongest measure of success was *endurance*: the ability of the business to weather economic crises and staying in business over the long term. This certainly correlates with this researcher's own experience.

Raymond et al. (2011) found that the success vision of a SME is very personal, because the view of success that a SME owner/manager has of his/her business, determines what will be regarded as success for a SME. This view is echoed by others (Collis & Jarvis,2002; Jarvis et al.,1999; Mabhungu, 2016).

> *The entrepreneurial motivation and objectives of a SME owner determines the strategic choices and managerial practices of the business – what they conceive as performance for themselves and their businesses – and not the views of external experts and researchers*. (Raymond et al., 2011).

Raymond et al. (2011) found that SME owners' objectives can be grouped into five categories as listed below (with examples):

- *Personal* (sufficient income to meet family needs, independence, quality of life);
- *Economic* (become wealthy, high growth- and profit margins, become a model business);

- *Social* (be socially involved, provide local jobs, promote local suppliers);
- *Relational and environmental* (meet customer expectations, maintain good reputation, choose environmentally responsible suppliers);
- *Family* (see children succeed owner, preserve the family inheritance).

The research of Raymond et al. (2011) further showed that performance as conceived by a SME owner/manager could be grouped into four dimensions (with examples):

- *Personal performance*: Owner's inheritance, quality of life, recognition in community;
- *Economic performance*: Greater profits than peers, growth of business;
- *Enduring performance*: Survival of the business in the long term, financial health of the business;
- *Sustainable performance*: Quality of life provided to employees, investment in society.

In the light of the above facts, the researcher proposes a universal definition of SME success that sums up the literature and which is validated in a survey discussed in Section 7.9:

> *SME success means to have a profitable business that sustains the owner's desired standard and quality of living.*

This definition encompasses all the different views of success found by the researcher in literature, as shown by analysing its components:

- *Profitability*: this should be obvious for any private business. Without a profit, there is no point for its existence. It also does not exist in the first instance for charitable reasons or the benefit of any stakeholders other than the owner's benefit.
- *Sustainable*: The business must be viable and profitable in the long run (endurance) to have an impact on the owner, successors, employees and society.
- *Desired standard of living*: Meeting the desired financial needs as defined by the owners.
- *Desired quality of living*: Providing for desired non-financial personal needs, such as working hours, the ability to go away regularly on holiday, or to be active in improving workers' well-being, and creating jobs.
- In the researcher's own experience the "quality of living" goals, especially the humanitarien type, are only fulfilled much later when a SME is well established with a healthy balance sheet and good management systems.

4.5. PERFORMANCE MEASUREMENT IN SMES

4.5.1. Low PMS usage in SMEs

SMEs do not use PMS as they should – and there is general consensus in literature that very few SMEs use contemporary performance management systems (Carlyle, 2013; Garengo & Sharma, 2014; Wasniewski, 2017). Several reasons are mentioned in literature for this state of affairs.

SME owners have a *general ignorance* about PMSs and their benefits. Rompho (2011) noted that most SME owners have never heard of the BSC, for example, and therefore do not use it. This finding was confirmed in SA, by Kirsten, Vermaak and Wolmarans (2015), for SME owners as well as management accounting practitioners. Even SA accountants are generally not familiar with a popular PMS system, such as the BSC, and therefore it is unlikely that their clients would be informed (Kirsten et al., 2015). Jamil and Mohamed (2011) confirmed that financial advisors in general have little or no experience with PMS design.

This is especially significant to this study, because in SA, the accountant is the most sought advisor by SMEs (Kirsten et al., 2015). This important role of accountants in the life of SMEs is echoed in other parts of the world (Carlyle, 2013; Collis & Jarvis, 2002).

In SA, most SME owners are also *not financial literate enough to understand financial statements*, and this is exaggerated by the vast cultural differences in SA (Kirsten et al., 2015).

SME owners/managers *do not have the necessary management skills and training to implement* these systems (Abor & Quartey, 2010; Fernandes et al., 2006; Garengo & Biazzo, 2012).

A common refrain is that PMS *implementations are too difficult, costly and time consuming* for management resource scarce SMEs. SMEs have severe shortage of management, personnel and financial resources (Brem et al., 2008; Carlyle, 2013; Garengo et al., 2005; Garengo & Sharma, 2014; Hudson, Smart & Bourne, 2001). The resource intensity of a PMS implementation is clearly illustrated in Chapter 3. Hudson, Smart and Bourne (2001) found that implementation failed mostly because of management time constraints and a perception existed that a PMS would not address the company's immediate needs. It was seen as too long term and too strategically focussed without short-term results. Implementing a PMS did not fit into the short-term view and fire-fighting mode of SMEs.

As demonstrated in Chapter 3, implentation would be *difficult without specialist help* (Neely, 2007). Consultants in this field are scarce and costly as noted by some authors (Duarte, Deschamps & Pinheiro de Lima, 2017; Fernandes et al., 2006) and experienced by the researcher in SA.

According to Hudson-Smith and Smith (2006), SME owners *need short-term benefits* from PMS and traditionally this is not the case with a PMS project. Ates et al. (2013) added that *mission, vision, and strategy are difficult concepts* for SMEs to grasp Several authors noted the total absence of formal strategy formulation in SMEs, as opposed to the requirement of a formal strategy for most PMSs (Carlyle, 2013; Garengo & Biazzo, 2012), which makes formal strategy a major obstacle to PMS implementation. Strategy development is therefore a major component of PMS implementation.

As was also mentioned earlier in Section 1.3.2, the PMS field is complex with few models available for SMEs and nothing in general use (Brem et al., 2008; Carlyle, 2013; Hudson, Smart & Bourne, 2001; Wasniewski,2017).

In conclusion, the following reasons have been listed for low PMS usage in SMEs:

- Lack of knowledge about PMS and its advantages;
- Lack of financial resources for implementation;
- Lack of management resources for implementation;
- No PMS framework or model for SMEs in general use;
- Lack of formalised strategy;
- Lack of available expert support for implementation/consultants.

4.5.2. Strategic measures in SMEs

As proposed in Section 4.4, the success vision of a SME will be to sustain the owner's desired standard and quality of living. However, according to most research findings, the strategic planning to achieve this vision will not be formally in place or very clear as noted in Section 4.3.

Because of the missing formal strategy, strategy development, planning and revision will therefore be done simultaneously with PMS design for SMEs with most PMS frameworks. Some researchers proposed this dual process in any case for any size business (Niven, 2014; Rohm et al., 2013). As the implementation process in Chapter 3 demonstrated clearly, the development of formal strategy as input to a PMS is a significant contributor to the complexity and resource intensity of the process.

Researchers have proposed alternative approaches to side-step the traditional strategy development process required to formalise strategy to accommodate SMEs. This researcher could find three examples of such approaches in literature, which are discussed in more detail in Chapter 5:

- A Financial Statement-based system (Bahri et al., 2017), where the authors developed a type of generic PMS for manufacturing SMEs, based on drivers of performance and results obtainable from a standard set of financial statements(refer Section 5.4.2).
- Garengo and Biazzo's (2012) circular approach, where the implied strategy of a SME is unveiled and mapped in a BSC (refer Section 5.4.3).
- The Business Profile Benchmarking Approach (Dalrymple, 2004) compares own performance with international benchmarks and subsequently develop strategy out of this performance gap. (refer Section 5.4.4).

Although formal strategy development is scarce among SMEs, it does not necessarily mean that a strategy does not exist, according to findings by Kraus; it is just not formally documented and exists in the owner's/senior manager's mind (Kraus, Reiche & Reschke, 2007; Snyman, Kennon, Schutte & Von Leipzig, 2013). From his own experience, this researcher agrees totally with this finding.

Ates et al. (2013) noted that SMEs should be assisted to unveil their existing strategies (Lonbani, Sofian & Baroto, 2015) in order to make formalisation of strategy easier and that research is developing in this direction. The bottom-up circular approach of Garengo et al. (2005) is an example.

A study by Bäuml (2014) shed further light on the cause of this lack of strategy formalisation. Bäuml found that strategic performance measures only start to have a significant effect in firms reaching a size of 45 to 55 workers. Strategic measures align the workforce behind the strategic goals. In a small company, it is much easier for the owner to align the workforce behind him/her without measures. This is a very significant finding, because the implication is that for the biggest SME population by far (Section 4.2.2), strategic measures in a PMS are much less relevant than commonly portrayed in literature.

The researcher concludes that it seems valid to accept that strategic measures in a PMS are less impactfull in most SMEs than in larger businesses. A size of fewer than 50 workers fits the definition of small- and micro business in SA (Section 1.2.1) representing more than 95 percent of all businesses in SA as well as internationally (Section 4.2.2). The group classified as SMEs should therefore in a PMS context rather be viewed as two separate groups: (i) small businesses; and (ii) medium-sized businesses. Consequently, strategy should not necessarily be the most important driver in a SME PMS. It is a well-documented fact that SMEs change strategy often and quickly, which is not good for traditional PMSs (Pekkola et al., 2016; Rompho, 2011). Indeed, Rompho found during a case study of a failed BSC implementation in a SME (Rompho, 2011) that frequent strategy changes were the primary cause of PMS failure.

With the aforegoing facts in mind, this researcher concludes that strategic measures should only be brought into a PMS for SMEs on a contingent basis when:

- The SME's management and financial resources can handle the process (Garengo & Sharma, 2014); and
- The SME has grown to a critical size of more-or-less 50 employees (Bäuml, 2014); and
- The strategy of the SME has become more stable (Rompho, 2011).

4.5.3. What do SMEs measure?

There is general consensus among researchers, that most SMEs have some variation of an accounting system that represents the basis of their measurement. They focus largely on financial matters and cash flow (Hudson, Smart & Bourne, 2001; Jarvis et al., 1999; Taticchi, et al., 2008).

SMEs do not have balanced, multi-perspective measurement systems and tend to focus on lagging rather than leading measures (Garengo, et al., 2005). They tend to support the control rather than the planning function (Mabhungu, 2017).

This emphasis on financial measures is understandable to an extent, bearing in mind that accountants are the most used source of advice by SMEs in SA (BER, 2016; Kirsten, et al., 2015) and internationally (Collis & Jarvis, 2002) – and it has been noted that accountants are in general not familiar with modern PMSs (Jamil & Mohamed, 2011; Kirsten, et al., 2015), such as the BSC. Further reasons for the dominance of financial measures in SMEs are statutory requirements and

credit providers. Statutory laws in general require businesses to submit annually a set of financial statements (Collis & Jarvis, 2002; Kirsten, et al., 2015).

A SA survey by Kirsten et al. (2015) showed that extensive financial ratio analyses is done in general by accountants for SME owners, but primarily as a need for credit providers such as banks, to assess risk. The common use of periodic financial statements (income statements and balance sheets) because of the requirements of banks, which are the primary credit providers to SMEs, was also highlighted in a UK study by Collis and Jarvis (2002), where cash flow, management statements, and bank statements surfaced as the most popular measures. Kirsten et al. (2015) found that in SA the five most calculated financial ratios are current ratio, net working capital, net profit margin, gross profit margin and change in gross profit – all profitability and liquidity related. Kirsten et al. (2015) also noted that these measurements are mostly difficult to understand for SME owners in general and do not assist them in measuring and managing performance. According to Jarvis et al. (1999), these financial measures are at best lag indicators to SMEs because they are only available monthly or sometimes only annually.

This study by Jarvis et al. (1999) posed the following question to SME owners: “What is the most important thing to keep an eye on to assess how the business is doing?” Their finding was that cash- and cash flow indicators are the most popular measures used by SMEs – overshadowing profitability measures by far. In fact, all measures that supported survival as a goal were regarded as more important. This obviously correlates with the most important objective of SMEs: staying in business (Section 4.4). The cash flow measures used by SMEs to manage their businesses are of a short-term nature, such as daily bank balances, daily cash sales (Jarvis, et al., 1999). These are all easy to access, in contrast to cash flow and liquidity calculations of their accountants which are at best monthly and probably annually available, and of course lagging.

Some researchers also noted a focus on internal and short-term operational measures besides financial aspects (Ates et al., 2013; Garengo et al., 2005). Hudson, Smart and Bourne (2001) found that SMEs sometimes have an overload of unused measurements, mostly created in reaction to a problem, supporting the general reactive management style applied in most SMEs (Jarvis et al., 1999).

Two studies among UK SMEs showed that SMEs are more sophisticated regarding measurement than is generally perceived (Collis & Jarvis, 2002; Jarvis, et al., 1999). Jarvis et al. (1999) found that the use of leading indicators for cash flow- and breakeven/profit projections, for example, are used quite often, although many times informally. An example will be something as simple as monitoring the number of incoming phone calls to project sales. Another will be to roughly monitor daily control cost items (Garengo, et al., 2005; Jarvis, et al., 1999) plus cumulative daily sales to project month-end cash flow and profit. This seemingly contrasting finding by especially Jarvis et al. (1999) can probably be explained by the nature of the sample of their study. The sample was 20 mature SMEs in the UK, which had been operating for five to 38 years. This level of sophistication is most probably

not the norm – certainly not in SA, where the majority of businesses fail before 3.5 years (DTI: RSA, 2008). It probably rather points to how successful SMEs should measure performance.

In the researcher's own experience, leading profitability measures and at least a rolling 30-day cash flow projection (past the next month-end) is not uncommon among well established SMEs. Typical profit leading measures will be sales, breakeven and monitoring key variable cost items.

The common observation that SMEs involved in quality programmes tend to be more sophisticated with PMS (Garengo, et al., 2005) echoes this conclusion about the Jarvis et al. finding, because it is a fair assumption that it would be the more mature SMEs that are involved in quality programmes.

In conclusion, measurement in SMEs is dominated by financial measures, of which cash flow and liquidity-related measures are the most prominent. The drivers of these measures are the objective of survival of all SMEs as well as the credit providers, mainly banks. SMEs do not have balanced PMSs. Although more mature SMEs tend to have much more sophisticated systems for cash flow and profitability, they are still mostly informal and lagging measures.

4.6. REQUIREMENTS FOR A SME PMS

The requirements or characteristics for a PMS in general without reference to size were identified in Section 2.5 (Table 2.2). In this section the specific requirements for PMSs pertaining to SMEs will be identified by studying the literature as well as logical conclusions by the researcher. This is another step towards developing the secondary thesis objective, i.e the requirements for a SME PMF in the SA context, which follows in Section 4.6.

The researcher observed that what stands out in the literature about PMSs in SMEs, is that many researchers highlight the importance of specific types of objectives and measures that SMEs should have in their PMSs in certain perspectives – a bottom-up characteristic. For example, some researchers (Keegan, Eiler & Jones, 1989; Watts & McNair-Connolly, 2012) have proposed PMS frameworks with basic essential measures that any SME should have. This is in contrast to the general PMS literature, which mostly relates to big business, and where reference to PMS requirements are made mostly only for the system as a whole and in non-prescriptive, general terms – leaning towards uniqueness of every business's PMS – a top-down characteristic (Cocca & Alberti, 2010; Garengo et al., 2005; Neely, et al., 2005).

4.6.1. Specific measures of importance in SMEs

4.6.1.1. Cash and liquidity

Several, if not all, researchers note that cash- and cash flow measures are of paramount importance to SMEs, not only for business survival but also for credit providers (mostly banks) (Collis & Jarvis, 2002; Jarvis, et al., 1999; Mazzarol, 2010; Watts & McNair-Connolly, 2012; Welsh & White, 1981). Hudson, Smart and Bourne (2001) stated that the financial dimension/perspective is most critical for SMEs because of their limited financial resources and therefore lack of a safety net.

The credit provider will have as big an interest in the SME's liquidity and general health as the owner. Banks' credit decisions are based on the balance sheet as security and liquidity measures for affordability (Jarvis et al., 1999; Kirsten et al., 2015). It is therefore important that these measures must be up-to-date and closely managed by the SME to have available on short notice for obtaining financing in times of cash flow crises. In practice, managing security for credit to the bank is been paid more attention than maximising profit (Jarvis et al., 1999).

4.6.1.2. Human resources

Hudson, Smart and Bourne (2001) stated that, because of the flatter organisational structure and therefore many roles and more responsibilities of employees in SMEs, the human resource dimension is also critical because employees have to be motivated and well trained. A multi-skilled workforce is therefore very important in SMEs (Chimwani, Nyamwange & Otuyo, 2013).

4.6.1.3. Customer dimension

Customer satisfaction is very important because SMEs tend to have fewer customers and are therefore more at risk when losing one customer (Hudson, Smart & Bourne, 2001; Chimwani et al., 2013; Watts & McNair-Connolly, 2012). SMEs excel at meeting customers' needs and create value for the customer from the bottom-up. SMEs therefore need to have basic customer satisfaction measures in place.

4.6.1.4. Productive/profitable operations

Garengo et al. (2005) emphasised that operational aspects are most critical to SMEs' success. Productivity of operations, quality, and cost control/reduction are considered as important areas for SMEs to excel in and are noted as essential, basic areas of measurement (Basuony, 2014; Hudson, Smart & Bourne, 2001; Keegan et al.,1989; Watts & McNair-Connoly, 2012).

These measures could all be described as having the attribute of "driving profitable operations".

4.6.2. Requirements for a SME PMS as a whole

The general "top-down" system requirements for a good PMS in Table 2.2 is viewed from a SME perspective and accepted or adjusted to suit SMEs' needs.

4.6.2.1. Strategy

Hudson-Smith and Smith (2006) noted that frequent *strategic changes must be accommodated* because this is a feature of emergent strategies – it is developed by an iterative process. Rompho (2011) confirmed that a PMS had to accommodate frequent strategy changes, which is a characteristic of SMEs.

As concluded in Section 4.5.2, strategic measures should also be included by way of *a contingent approach*, depending on business size, resources, etc. Then, when strategy is eventually incorporated into the PMS, the PMS framework should *facilitate the development of the strategy*

(Garengo & Biazzo, 2012), because in practice, strategy development and PMS are commonly integrated (Niven, 2014; Rohm, et al., 2013) and interrelated (Garengo & Biazzo, 2012). Specifically the PMS should promote the unveiling and mapping of existing strategy (Ates et al., 2013).

4.6.2.2. Clarity and simplicity

For SMEs it is especially important that the PMS is simple and focussed, with the minimum number of measures (though still balanced). SMEs do not have the management resources for a complex system (Garengo & Biazzo, 2012; Hudson-Smith & Smith, 2006).

4.6.2.3. Resource efficient implementation

Among the requirements for SME PMS frameworks that surfaced from the literature, resource efficient implementation and maintenance is one that needs to be highlighted. The researcher decided to separate it from “clarity and simplicity” (where it may be included with big company PMSs) and show it as a special requirement by itself because of its importance.

Resource efficient implementation and maintenance stands out in importance as specific requirement in SME frameworks due to resource shortages (management in particular), management skills and lack of knowledge about PMS, according to many researchers (Ates et al., 2013; Garengo & Sharma, 2014; Hudson, Smart & Bourne, 2001).

Fernandes et al. (2006) noted the lack of human resources as the major barrier to implementing a PMS, and observed that this factor becomes increasingly important as the size of the company decreases. Dalrymple (2004) observed that *time and management effort* are the *most scarce* of all SME resources.

A PMS demands expensive and extensive training to equip employees with the “right skills and knowledge” (Garengo & Sharma, 2014). Furthermore, Fernandes et al. (2006) noted that external consultants in this field are very expensive (Snyman et al., 2013) and experienced consultants are hard to find.

Hudson-Smith and Smith (2006) stated the importance of short-term as well as long-term benefits to maintain enthusiasm and momentum. This boils down to quick implementation. To address this requirement, some authors have suggested incremental or staged implementation (Brem et al., 2008; Cocca & Alberti, 2010; Hudson-Smith & Smith, 2006).

Perhaps Hudson-Smith and Smith (2006) summed up the importance of this requirement best by stating that PMS implementation will in fact *not be viable* in a SME if it is not resource efficient (Hudson-Smith & Smith, 2006).

4.6.2.4. Breadth

SMEs only require broad, simple systems because of their flat, more simple organisational structures (Garengo, et al., 2005; Keegan et al., 1989; Watts & McNair-Connolly, 2012).

Critics have noted that focussing on breadth initially results in a holistic, integrated view of the business. Focussing on only one or a few objectives, as the depth approach does on the other hand, is problematic since all areas of performance impact on each other in an integrated system (Garengo et al., 2005; Neely et al., 2005).

4.6.2.5. Stakeholder needs

SMEs do not have the luxury of catering for the needs of a diverse range of stakeholders (Garengo et al., 2005). In sync with the success vision of SMEs (Section 4.4), the primary goal of SME shareholders will almost certainly be to grow their businesses into a profitable and financially sound position, as soon as possible after start-up. The needs of other important stakeholders, like communities, employees and environmental aspect are also important, but secondary to those of the owner and shareholders. If the shareholders' requirements of a business which rewards them for time, risk and capital applied, are not met, there will be no business to satisfy the secondary stakeholders' needs.

Credit providers will have the same interest as the owners in a SME's survival and long-term endurance. As banks are the primary provider of financing for SMEs, they need to be treated as important stakeholders (Collis & Jarvis, 2002; Kirsten, et al., 2015; OECD, 1997). The shareholders and the bank (credit provider) will therefore be the only stakeholders that really matter for the vast majority of SMEs, or at least until they reach a mature and financially sound stage with a healthy balance sheet.

4.6.2.6. Dynamic adaptability

In the researcher's view and experience, this characteristic will not be required in a SME PMS, because the owners and management are close to the "action" to sense internal and external changes. It will be "in their minds" – in the same way as the strategy (Kraus et al., 2007; Snyman et al., 2013). Garengo et al. (2005) noted that few PMSs have this characteristic, mainly because of the complexity to accommodate this characteristic.

4.6.2.7. Process orientation, balance, causal relations

The requirements of process orientation (Section 2.5.1.6), balance (Section 2.5.1.4) and causal relationships (Section 2.5.1.8) are just as applicable to the PMSs of SMEs, as they are for those of big companies (Garengo et al., 2005). These characteristics have already been discussed in Chapter 2 and do not change from a SME perspective.

4.6.3. Conclusion

SME PMSs require the "top-down", overall *system requirements* specified for large companies as in Table 2.2, although somewhat amended for a SME context as discussed in Section 4.6.2. In addition, however, they also require some "bottom-up" specified *essential measurement areas* in

each perspective as discussed in Section 4.6.1. Figure 4.3 represents an iillustration of a summary of these PMS requirements for SMEs.

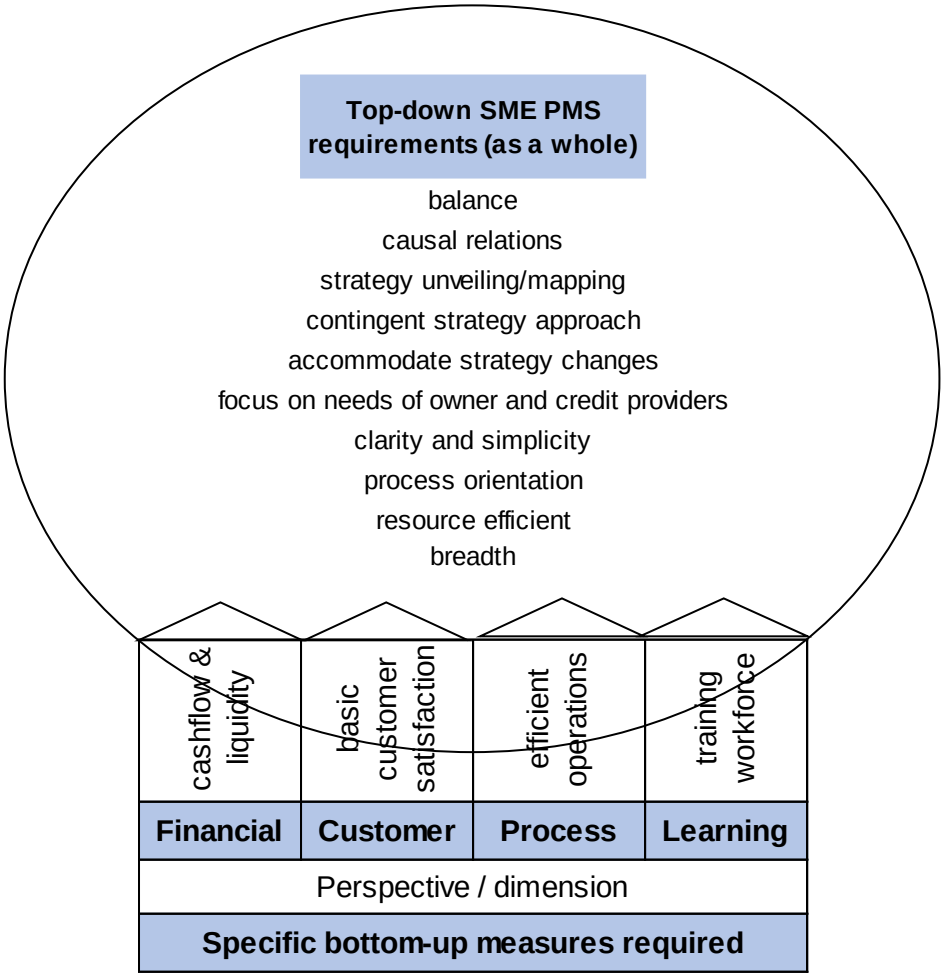


Figure 4.3: Requirements /characteristics for a SME PMS

Source: Researcher's compilation.

4.7. REQUIREMENTS FOR A SME PMS IN THE SA CONTEXT

To the best knowledge of the researcher, there is nothing in literature about specific PMS requirements for SMEs in the SA context. To establish these requirements, and thereby reach the secondary objective of this thesis, logical conclusions are made from available literature. In Table 4.4 below the attributes of SMEs in the SA context, previously identified in Section 4.2, are listed. The resulting impact of these attributes on the requirements of a SME PMS (Figure 4.3) is also shown, and discussed further in the following sections. There are no unique requirements as a result of the SA context, but some are especially important because of the SA context as shown in Table 4.4 and discussed below.

Table 4.4: South African perspective on SMEs and the resulting impact on a PMS

SA perspective on SMEs	Impact on SME PMS requirements
Critical skills shortages and uneducated workforce	clarity & simplicity
Difficulty in competing for skilled labour	
Low levels of basic literacy and numeracy	importance of workforce training objectives & measures
Language/culture difference/ communication difficulties	
High level of labour intensity in SMEs	drive survival of SME (correlates with needs of owner & credit providers)
Biggest employers of the very lowest skilled labour	
SA SMEs have an abnormal high failure rate	
Rigid labour laws and militant unions	very resource-efficient implementation
Burdened by over-regulation and inept bureaucracy	
Lack of skills amongst a large percentage SME owners to run a business	
Most SMEs are classified as “small” or smaller	
Many SMEs are very young and immature businesses	

Source: Researcher’s compilation.

4.7.1. Clarity and simplicity

Low skills levels as well as skills shortages, cultural and language differences demand a clear and simple PMS.

4.7.2. Importance of workforce training objectives and measures

This is not a requirement for the system as a whole, but for specific objectives and measures in the learning perspective. Clear training objectives and measures are also necessitated by the very low basic skills levels of the general workforce.

4.7.3. Drive SME survival for the sake of shareholders and higher employment

The fact that the vast majority of SMEs in SA do not reach the established age of 3.5 years (DTI: RSA, 2008), amplifies the fact that their PMSs must be driven by the need for survival. This is more specific than the requirement for SMEs in general stated in Figure 4.3 (focus on owner/credit providers’ needs), but the high unemployment rate in SA cries out for action. A PMS that will drive higher success rates of SMEs is therefore a very desirable attribute.

4.7.4. Availability of affordable support for implementation

The qualifying requirement for this thesis is that the framework should be *practical*, i.e. be used in practice. To facilitate this requirement, there must be support (Neely, 2007), because it is highly unlikely that the vast majority of SME owners have the knowledge to do it on their own. In the researcher's experience, and as illustrated in Chapter 3, a specialist would be required for direct assistance to an individual SME for a successful implementation. External PMS consultants are very expensive and scarce worldwide (Ali, 2003; Duarte et al., 2017; Fernandes et al., 2006). In SA the consulting fee of these consultants would be out of reach for the vast majority of SMEs (Snyman et al., 2013).

Because of the close relation between SMEs and their accountants (Section 4.5.3) the SME's accountant (internal or external) would be the ideal specialist assistant for the task, but they are generally not equipped with such knowledge (Jamil & Mohamed, 2011; Kirsten et al., 2015).

It is the researcher's conclusion that a PMS framework would only be used by SMEs if competent affordable support for implementation is readily available.

4.7.5. Very resource efficient implementation

In the researcher's opinion, it is fair to conclude that, if resource efficient PMS implementation is a requirement worldwide for SMEs (even in much more sophisticated economies (Hudson, Smart & Bourne, 2001), it would be much more so in SA. The researcher believes that implementation of a PMS in most SMEs would not happen if it is not resource efficient, as confirmed by Hudson-Smith and Smith (2006).

This requirement is amplified by the abnormal additional pressure on management resources brought about by excessive regulation and onerous labour laws (Section 4.2.5). The abnormal low levels of management skills (Section 4.2.6) and the large number of small and immature businesses (Section 4.2.2) call for very resource efficient implementation.

4.7.6. Conclusion

All requirements for a PMS in SMEs as stated in Figure 4.3 are also important in SA. The SA context however calls for special emphasis on the following PMS requirements:

- Clarity and simplicity;
- Workforce training objectives and measures;
- Focus on driving the survival of the SME;
- Very resource efficient implementation.
- In addition to all the above requirements there is a special requirement for a PMS to be of practical use in SA:
  The availability of affordable support to SMEs for implementation of a PMS.

Figure 4.4 summarises the PMS requirements for SA SMEs. It expresses each requirement through a SME perspective and highlights the top-down system requirements especially important for SA SMEs.

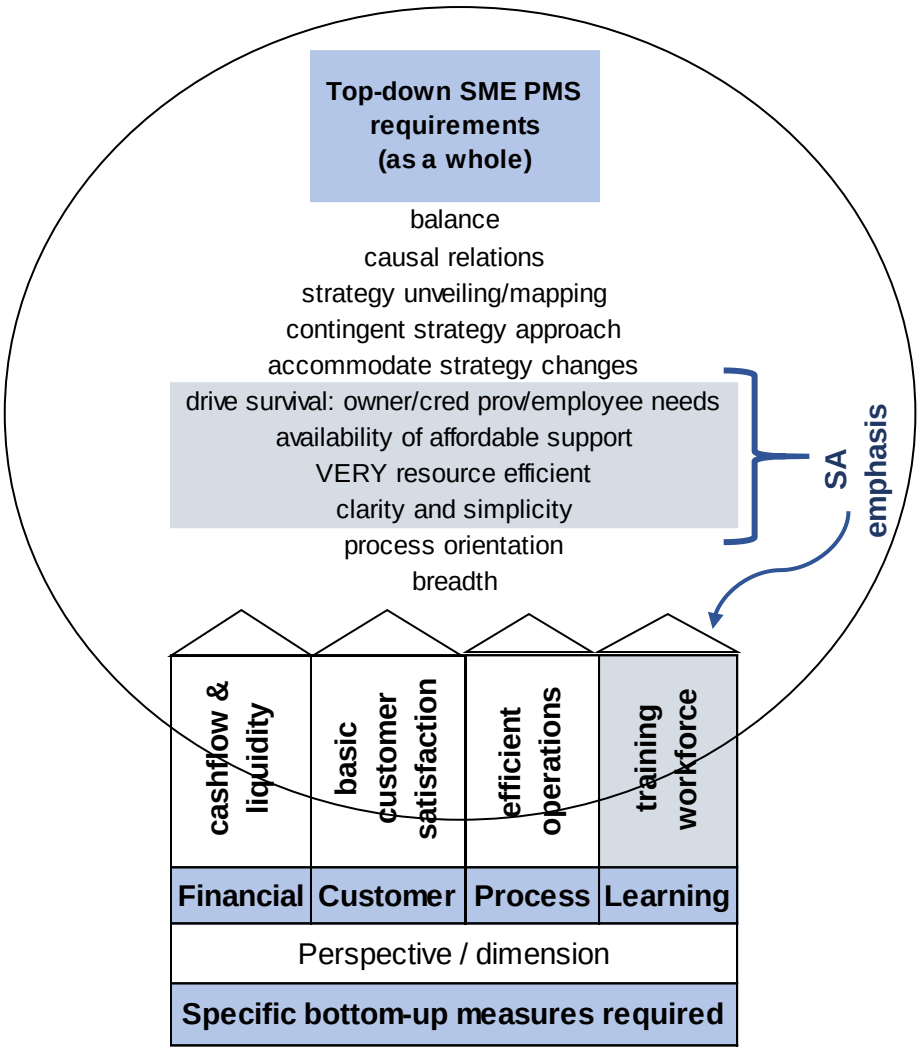


Figure 4.4: Requirements of a PM system for South African SMEs

Source: Researcher's compilation.

4.8. CHAPTER CONCLUSION

The secondary objective of this thesis was reached in this chapter. The characteristics and requirements of a PMS for use by SMEs in a SA context have been identified and are depicted in Figure 4.4. These requirements were used as reference in this research to design a PMS framework to guide SA SMEs in implementing PMSs.

CHAPTER 5:
COMPARISON OF SOME EXISTING PERFORMANCE MEASUREMENT FRAMEWORKS

In this chapter, 14 existing performance measurement frameworks (PMFs) from the PMS literature are analysed and compared against the requirements developed in Figure 4.4. Strengths and weaknesses are highlighted for seven (big) frameworks that have not been specified according to business size, and seven (small) frameworks developed specifically for SMEs.

The objective of this analysis was to gain a good idea of the design and structure of a variety of PMFs as input for a new PMF design.

So far in this research, the major focus was on identifying the requirements of a good performance measurement *system* (PMS). Further on, the focus shifts to developing a suitable performance measurement *framework* (PMF) that will guide the designing of a 'good' PMS for a SME in the South African context.

5.1. OVERVIEW OF PERFORMANCE MEASUREMENT FRAMEWORKS

As discussed in Section 2.3.1, a performance measurement framework guides you in choosing the correct measures for your particular PM system.

Business PMFs are generally driven by the vision and strategy of the particular organisation (Bourne, et al., 2000; Garengo & Biazzo, 2012). For a business, it generally means that it will cater for the needs of the shareholders. Furthermore, there has been a shift to being driven by the interests of more stakeholders other than the shareholders, for example employees and the environment (Neely, 2007).

Finally, there are PMS frameworks that do not emphasise the unique strategy and goals of a particular organisation, or the needs of specific stakeholders, such as the European Foundation for Quality Management (EFQM) framework. Other similar frameworks are The Malcolm Baldridge National Quality Awards (MBNQA) and ISO 9000.These are viewed as excellence frameworks that measure performance of a broad range of aspects of an organisation against certain benchmarks (Ali, 2003). Many of these frameworks were the result of the Total Quality Management (TQM) movement.

There are many PMFs in literature, but only a few specifically for SMEs, as noted by several authors (Brem et al., 2008; Carlyle, 2013; Wasniewski, 2017). Since 2000, research on PMFs in SMEs have been done on adaption of the models for large businesses, and also the development of models specifically for SMEs (Taticchi, Tonelli, & Cagnazzo, 2010). These SME PMFs are rarely used and are unproven. Wasniewski (2017) noted that the biggest problem appears to be their low applicability to business reality. The SME PMFs that exist are mostly only theoretically correct and do not take

into account the fundamental differences between SMEs and large businesses (Ates et al., 2013; Wasniewski, 2017). Most of the SME frameworks are also once-off case studies which are only "snapshots in time" that ended after their initial implementation (Brem et al., 2008; Carlyle, 2013).

Researchers agree that there are no existing frameworks, big or small, that are regarded as fully suitable for SMEs, or that are widely accepted (Bahri et al., 2017; Brem et al., 2008; Carlyle, 2013; Wasniewski, 2017). The conclusion is that existing SME frameworks are therefore mainly of academic value and of limited practical use. To the best knowledge of this researcher, this is still the case in 2019.

5.2. POPULAR EXISTING PMS FRAMEWORKS

It is not an objective of this research to analyse every possible existing PMF for suitability against the "requirements" of Figure 4.4. Taticchi, Tonelli and Cagnazzo (2010) noted at least 43 different PMFs and approaches in a 2010 study and there is no guarantee that it is a complete list because of the vast amount of PMS literature. The time constraints of this study prohibited investigation into all possible framewords. Furthermore, it is already known according to recent research that no existing framework fits the requirements adequately, as noted in the previous section (5.1). The objective in analysing existing frameworks was to gain input from a variety of designs and possibly to identify a framework or components of frameworks that could be used as input in developing a new framework that does indeed fit all the requirements stated in Figure 4.4.

To determine which of the big frameworks (shown in Table 5.1) to include in the analyses, the following method was used to select a sample of seven:

- The five frameworks cited mostly as "popular" or "widely used" in the literature study for this thesis.
- One widely-used framework from the TQM movement: the EFQM framework.
- One framework, although not well known, but which the researcher noted had a different design to most big frameworks: the Dynamic Multi-dimensional Performance (DMP) framework. This framework caters for big and small businesses (Maltz et al., 2003).

To determine which small frameworks to include, only frameworks created after 2000 were considered, as shown in Table 5.2. This decision eliminated two SME models cited by several authors, i.e. the Organizational Performance Measurement model from Chennel et al. (2000) and the Integrated Performance Measurement for Small Firms model from Laitinen (1996). (Garengo et al., 2005; Jamil & Mohamed, 2011; Taticchi, Tonelli, & Cagnazzo, 2010; Wasniewski, 2017). However, to date, none of these two frameworks have been proven or accepted in SMEs in practice (Brem et al., 2008; Carlyle, 2013; Jamil & Mohamed, 2011; Mabhungu, 2017) and therefore only the newer ones were included. The researcher did not find many SME PMFs during the literature study, but the seven selected frameworks for the sample all represent a different approach to PMS design.

Table 5.1: A sample of the "Big" PM frameworks

	"Big" performance measurement framework (research sample)	Creator	Cited by author											Motivation for inclusion of PM Framework
			Hudson, Smart & Bourne, 2001	Garengo et al., 2006	Neely, 2007	Taticchi et al., 2010	Jamil & Mohamed, 2011	Khan & Shah, 2011	Striteska & Spickova 2012	Milosavljevic, Milanovic & Milosevic, 2014	Sorooshian et al., 2016	Wasniewski, 2017	Zineb & Mohamed, 2018	
1	The Balanced Scorecard	Kaplan & Norton, 1992	●	●	●	●	●	●	●	●	●	●	●	Most frequently cited as popular PM Framework model in researcher's literature study
2	SMART (strategic measurement analysis and reporting technique) Pyramid	Lynch and Cross, 1991	●	●	●	●	●	●	●	●	●	●		
3	The Performance Measurement Matrix (The Supportive performance measures)	Keegan et al., 1989		●	●	●	●	●	●	●	●	●	●	
4	The Performance Prism	Neely et al., 2002		●	●	●	●	●	●	●	●	●	●	
5	The Results and Determinants Framework	Fitzgerald et al., 1991	●	●	●	●	●	●			●	●	●	
6	EFQM - the European Foundation for Quality Management's business excellence model)	EFQM, 1988			●	●			●	●	●		●	Excellence model, TQM
7	DMP - the Dynamic Multi-dimensonal Performance measurement framework	Maltz et al., 2003									●			Different approach

Source: Researcher's compilation.

Table 5.2: "Small" PM framework sample

"Small" performance measurement framework (research sample)		Creator
1	Continuous strategic improvement process for SMEs (CSI)	Hudson et al., 2001; 2006
2	The Business Process benchmarking approach	Dalrymple, 2004
3	The performance measurement and management framework	Jamil & Mohamed, 2011
4	The small business pyramid (SBP)	Watts, McNair-Connoly, 2012
5	Circular methodology for strategic PMS development in SMEs using the BSC	Garengo & Biazzo, 2012
6	Flexible performance measurement system for SMEs (FPM)	Pekkola et al., 2016
7	PMM for SMEs: a Financial statement-based system	Bahri et al., 2017

Source: Researcher's compilation.

5.3. EXISTING FRAMEWORKS NON-SPECIFIC TO BUSINESS SIZE (BIG FRAMEWORKS)

5.3.1. The Balanced Scorecard

The logic of the Balanced Scorecard of Kaplan and Norton (1992; 1996) has been discussed in Chapter 3 and is illustrated in Figure 3.1.

Several sources state that the BSC is the most popular PMF (Garengo et al., 2005; Hudson, Smart & Bourne, 2001), both in literature and in practice, as it has been quoted as used by 25 to 60 percent of large firms worldwide (Neely, 2007; Niven, 2014; Rompho, 2011).

Rompho (2011) noted that the BSC is one of the most widely-used management tools today. Madsen (2015) cited recent research that the BSC is "one of the most influential management ideas of our time".

The BSC design process is extremely useful for parallel strategy development and PMS design (Niven, 2014), because the cause-and-effect logic of the four perspectives is very simple. It helps you to determine what would enable your strategy. When co-creating the BSC and strategy, Niven remarked that through answering the OIQs related to each of the BSC perspectives, your implicit strategy will emerge.

The main weakness of the BSC is that it still requires a formal strategy as input, cannot accommodate frequent strategy changes and is very resource intensive to implement. A major advantage of the BSC is that it is so widely used and very well documented with many case studies and the topic of many research projects. Training courses are available in SA, but expensive for small businesses. As an indication, a quote for BSC training in the form of a group training course over five days costs about R9 000 per person per day (PMI Africa, 2019).

5.3.2. The Performance Prism

The Performance Prism, developed by Neely, Adams and Crowe (2001) is similar to the BSC, but has five facets (perspectives) and focusses on all stakeholder requirements – not only those of shareholders (Figure 5.1). It puts stakeholder needs before strategy as input to the system. It also takes into account what the stakeholders' input to the organisation must be. The Prism maps its objectives in a graphic format called a "success map" to document strategic thrust and causal relationships.

The five distinct but linked perspectives prompt five questions (Neely, 2007) to address (its OIQs) when defining objectives and performance measures:

i) "Stakeholder satisfaction: Who are our key stakeholders and what do they want and need?
ii) Strategies: What strategies do we have to put in place to satisfy the wants and needs of these key stakeholders?
iii) Processes: What critical processes do we need to operate and enhance these processes?
iv) Capabilities: What capabilities do we need to operate and enhance these processes?
v) Stakeholder contribution: What contributions do we require from our stakeholders if we are to maintain and develop these capabilities?"

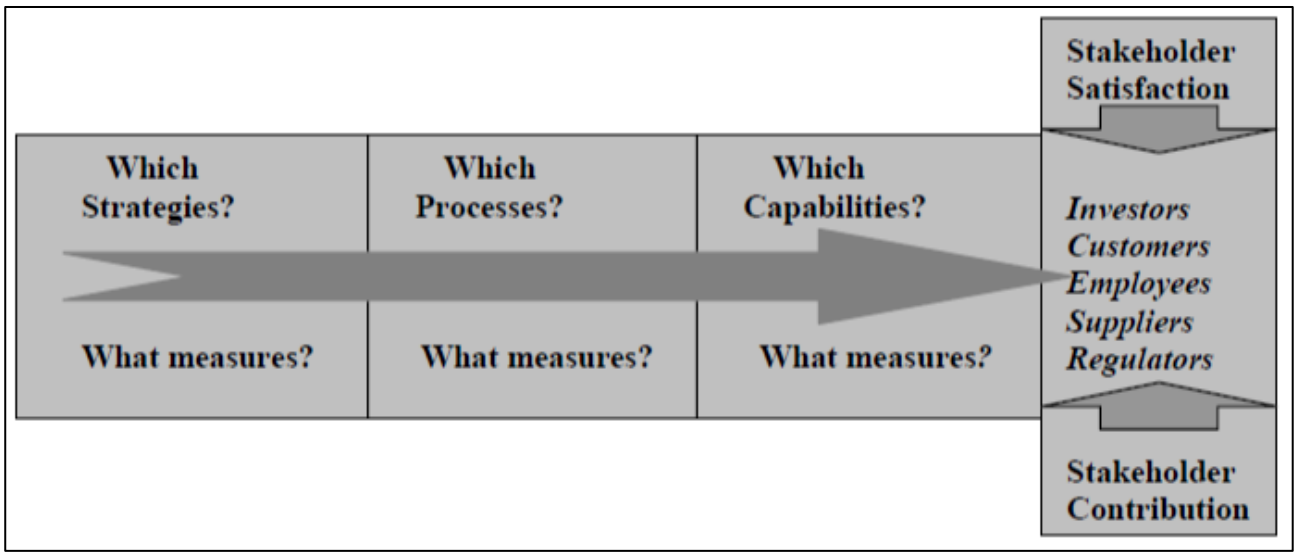


Figure 5.1: The Performance Prism

Source: Neely, 2007

The Prism's logic is that an organisation's results (stakeholder satisfaction perspective) are a function of determinants (the other Prism perspectives).

In the researcher's view, the Performance Prism may promote the inclusion of too many measures in a PMS, adding to complexity and resource intensity. It will also require a formalised strategy and cannot accommodate frequent changes in strategy. The inclusion of a wide range of stakeholders other than the owners, makes the Performance Prism impractical for SME use, in the researcher's view.

5.3.3. The SMART/Performance Pyramid

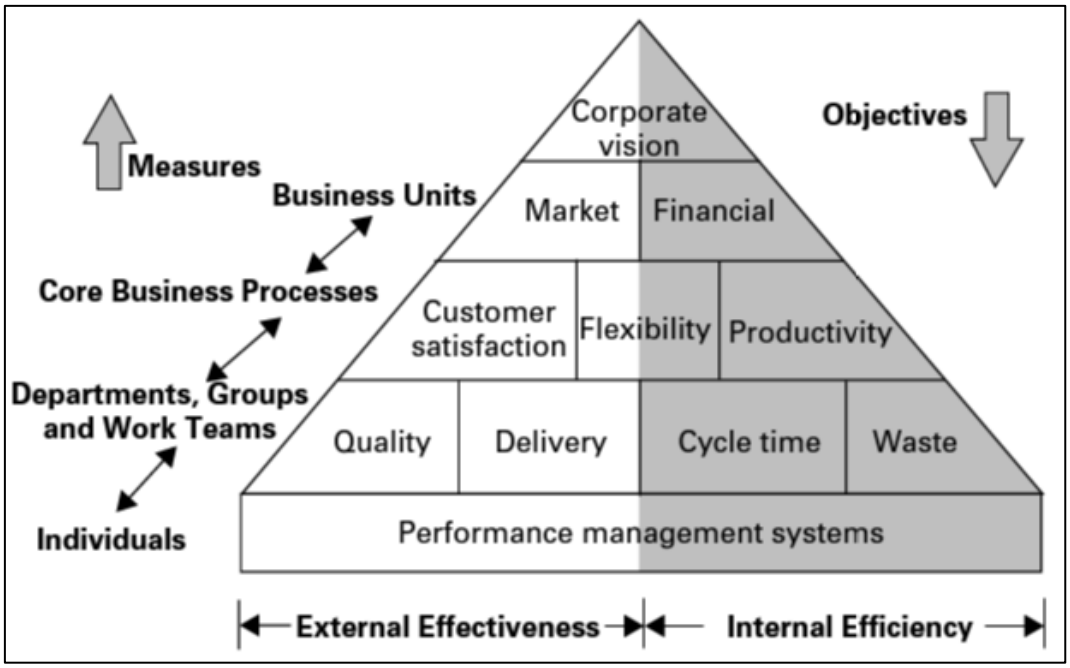


Figure 5.2: The SMART performance pyramid

Source: Lynch & Cross, 1991.

The Performance Pyramid (Figure 5.2) links corporate vision and strategy with the lower levels of the organisation. Corporate strategy objectives are cascaded from the top down through the business units and departments of the organisation (Garengo et al., 2005; Neely, 2007; Striteska & Spickova, 2012).

From the diagram in Figure 5.2, it can be seen that the creators of this framework proposed nine areas of measurement which can be classified as external or internal effectiveness- and efficiency measures. Strategy objectives are cascaded to these nine areas, each of which is allocated to one of three organisational levels.

The nine areas of measurement of the Pyramid are more specific/narrower than the perspectives of the BSC and the Performance Prism, but not as balanced. There are no learning or human resource areas, for example.

5.3.4. The Performance Measurement Matrix

Keegan et al. (1989) proposed many “supportive measures” to assist companies in identifying their strategic objectives. You will need a formalised strategy to guide the process of selecting measures.

Figure 5.3 shows how the supportive measures are classified and combined in a two-by-two matrix with cost and non-cost perspectives and internal and external perspectives.

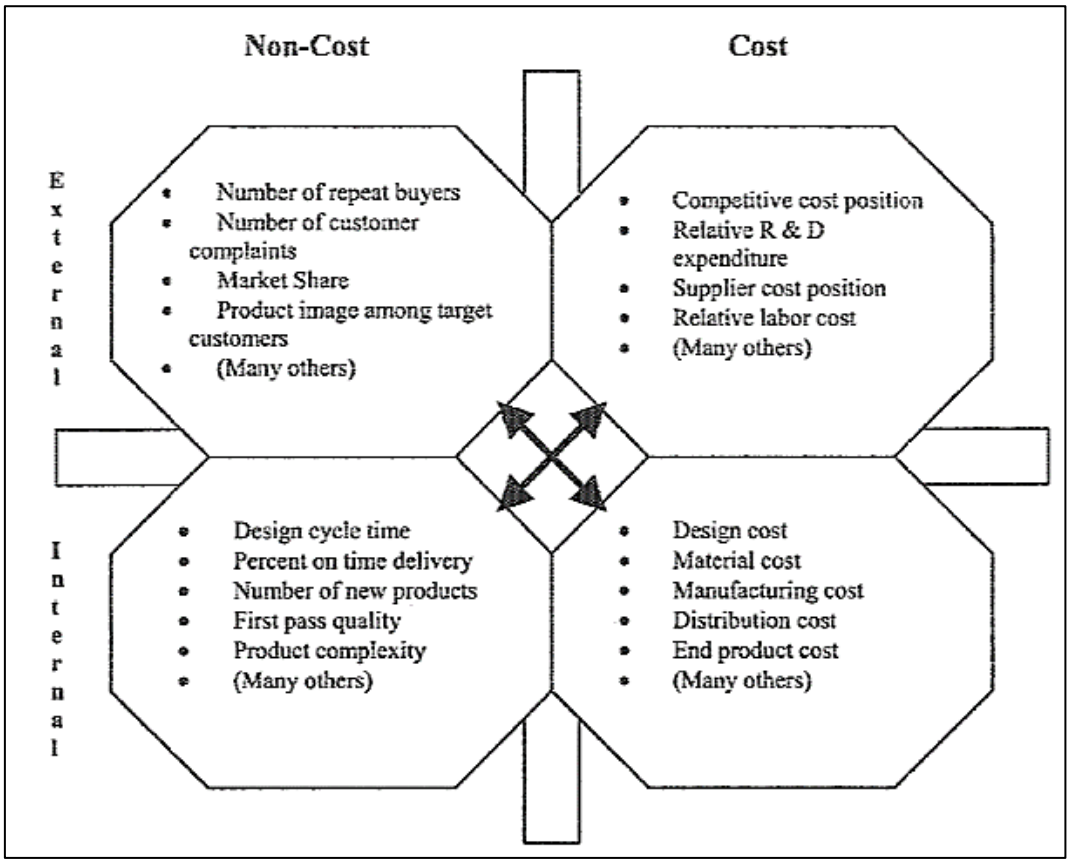


Figure 5.3: The Performance Measurement Matrix

Source: Keegan et al., 1989.

Keegan et al. (1989) noted that companies tend to have too many and irrelevant measures in their PMSs. He suggested starting broad, with five basic overall measures and deriving other measures from them, especially initially and with smaller companies. These basic mesures are:

- Quality;
- Customer satisfaction;
- Speed;
- Product/service cost reduction; and
- Cash flow from operations.

The matrix is noted in literature for its simplicity and flexibility (Garengo et al., 2005). The suggestion by Keegan et al. (1989) to start with five simple measures, is an attractive option for a resource-efficient start to a PMS implementation. The matrix can accommodate strategy changes easier than many other frameworks but, in the researchers opinion, would still require a redesign of the PMS. It also has no causal linkages.

5.3.5. The Results-Determinants Framework

This model by Fitzgerald, Johnson, Brignall, Silvestro and Voss (1991) proposes six measurement perspectives, classified as either results or determinants orientated (Figure 5.4).

- The results group of perspectives (lagging) includes: Competitiveness and Financials.
- The determinants (leading measures) group includes: Quality, Flexibility, Resource uitilisation, and Innovation

This model was specifically developed for the services industry. Critics have noted that it lacks customer and human resources' perspectives (Hudson, Smart & Bourne, 2001).The authors noted that the results dimensions will be fairly generic between service companies. The determinants dimensions will however be tailored for strategic differentiation.

	Dimensions of Performance	Types of Measures
RESULTS	Competitiveness	Relative market share and position Sales growth Measures of customer base
	Financial performance	Profitability Liquidity Capital structure Market ratios
DETERMINANTS	Quality of service	Reliability Responsiveness Aesthetics/appearance Cleanliness/tidiness Comfort Friendliness Communication Courtesy Competence Access Availability Security
	Flexibility	Volume flexbility Delivery Speed flexibility Specification flexibility
	Resource Utilisation	Productivity Efficiency
	Innovation	Performance of the innovation process Performance of individual innovations

Figure 5.4: The Results-Determinants Framework

Source: Fitzgerald et al., 1991.

5.3.6. The European Foundation for Quality Management (EFQM) Framework

The European Foundation for Quality Management (EFQM) framework, shown in Figure 5.5, is one of the "excellence" models in the TQM field – developed in 1988. The EFQM framework is a very general, non-prescriptive PMF. It contains general principles and criteria for assessing performance and guiding to excellence over a wide spectrum of areas of a business/organisation(Striteska & Spickova, 2012). The areas are divided into five enabling areas and four results areas. The EFQM framework does not have a specific vision or strategy that directs measures – only "excellence" in general.

The model has a benchmarking component and is often referred to as a "self-assessment framework" (Ali, 2003). Ali (2003) noted that the EFQM is actually more for performance *management* than performance *measurement*.

The EFQM, as most TQM models, is very resource intensive and complex. It is widely used in Europe among large companies (Striteska & Spickova, 2012).

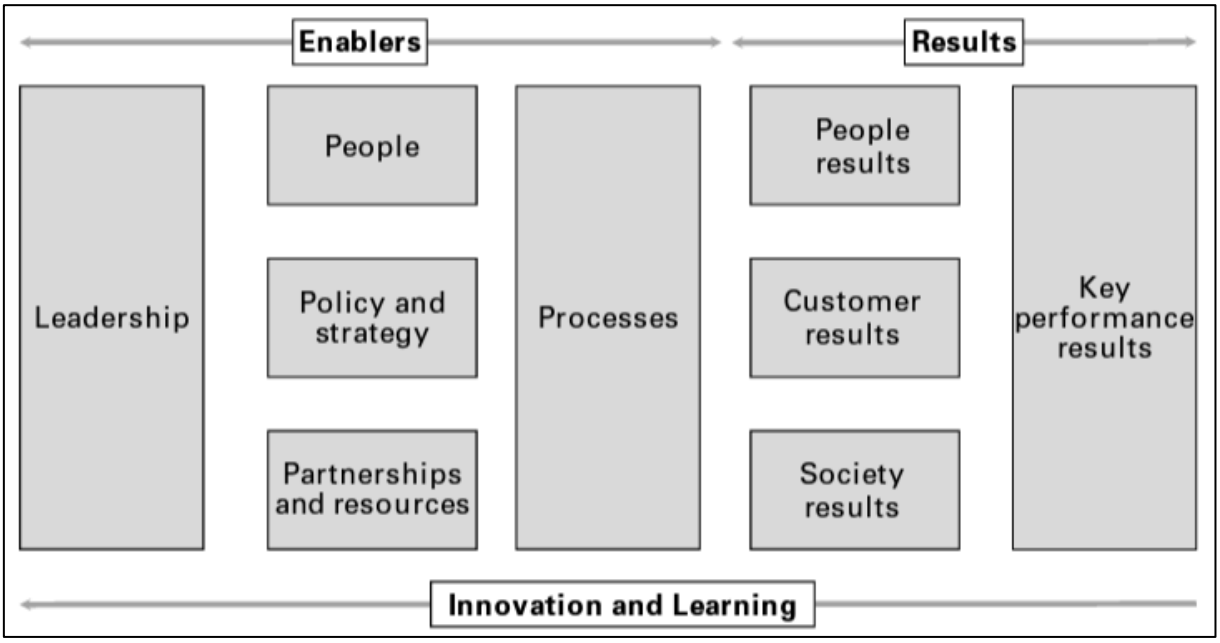


Figure 5.5: The European Federation for Quality Management Framework

Source: Neely, 2007.

5.3.7. The Dynamic Multi-dimensional Performance Framework (DMP)

The Dynamic Multi-dimensional Performance (DMP) Framework by Maltz et al. (2003) is not a well-known framework but it was included in this research because of its different approach compared to the popular frameworks and because it specifically addresses both big and small firms. As illustrated in Table 5.3, the DMP proposes five success dimensions in which measures are generated: financial; market; process; people; and future. It basically adds a fifth perspective (future), to the four common perspectives.

Table 5.3: The DMP Framework with suggested list of baseline measures and other measures depending on size and type of firm

	Financial	Market/ Customer	Process	People Development	Preparing for the Future
Baseline	Sales Profit margin Revenue growth	Customer Satisfaction index Customer Retention rate Service quality	Time to market with new products/svcs Quality of NPD & PM processes	Retention of top employees Quality of leadership development	Depth and quality of strategic planning Anticipating/prepar for unexpected changes in external environment
High Technology Firms (n = 95)		+ customer benefits from products/services	+ cycle time	+ quality of prof. devel. + employee skills training	+ investment in R&D (% of sales)
Low Technology Firms (n = 85)		+ responsiveness		+ encourage employees to suggest/ test new ideas	
Small Firms (n = 108)	+ cash flow			+ encourage employees to suggest/ test new ideas	+ investment in new mkt. development
Large Firms (n = 71)	+ EPS + stock price	+ market share		+ employee skills training + quality of corporate culture development	+ investment in R&D (% of sales)
Firms Product Life Cycle < 3 years (n = 66)			+ cycle time		
Firms Product Life Cycle > 3 years (n = 112)		+ responsiveness	+ quantity & depth of standardized processes	+ employee skills training	+ investment in new technology

Source: Maltz, Shenhar, & Reilly, 2003.

This framework has a different approach in that it proposes 12 baseline measures that can be used as generic measures to start off with. Options for additional measures are also proposed that can be added depending on the size and type of firm. The main feature and strength of the DMP from a SME viewpoint is the generic measures which make implementation more resource efficient than the other frameworks discussed. It does not require formalised strategy as input, but is based on what the designers propose companies “should” measure.

5.4. EXISTING FRAMEWORKS FOR SMES SPECIFICALLY (SMALL FRAMEWORKS)

5.4.1. The Continuous Strategic Improvement (CSI) process for SMEs

This model by Hudson-Smith and Smith (2006) proposes implementation of single strategic objectives one at a time according to priority in a continuous loop of improvement. It does not focus on achieving a balanced set of measures across performance dimensions in the first place, but rather the incremental implementation of strategic objectives. It also does not specify any perspectives/dimensions to be included.

A single strategic objective with supporting performance measures is developed and cascaded down to the operational level – using and learning in the process, before the process starts again with the next priority objective.

The model differs from other models therefore in that it starts with the development of only one top-level measure – not all at once. The aim of the model's developers (Hudson-Smith & Smith, 2006) was that the design- and implementation process should adhere to the following requirements:

- Very resource efficient development to ensure viability;
- Short-term as well as long-term benefits to maintain enthusiasm and momentum;
- The ability to surface informal strategy, to overcome limited strategic capabilities;
- Dynamic and flexible development, to accommodate strategic changes and ensure continued relevance.

The four continuous stages of the CSI process are shown in Figure 5.6. The first stage is to *name* the strategic objectives and prioritise them. This is done through normal structured sets of tools and techniques (SWOT, PESTEL, Porters 5-forces, etc). In Stage 2 (*act*) a multi-skilled project team will identify improvements and supporting measures to monitor and facilitate achievement of the strategic objective. Stage 3 (*use*) entails the actual implementation of the plans developed in Stage 2 throughout all levels of the business. Finally, in Stage 4 (*learn*), the loop is closed by reviewing the actual impact of the improvements that have been implemented.

The model brings earlier short-term benefits because only a single most-important objective is adressed to start off with – focussing resources on a single goal. This is intended to make the model resource efficient. It helps to surface existing strategy because of the iterative process of focussing on one objective at a time.

However, an initial top-down strategic analysis and strategy still needs to exist as starting point, in order to determine the strategic objectives, as Garengo and Biazzo (2012) pointed out.

This model therefore focusses initially on depth – not breadth.

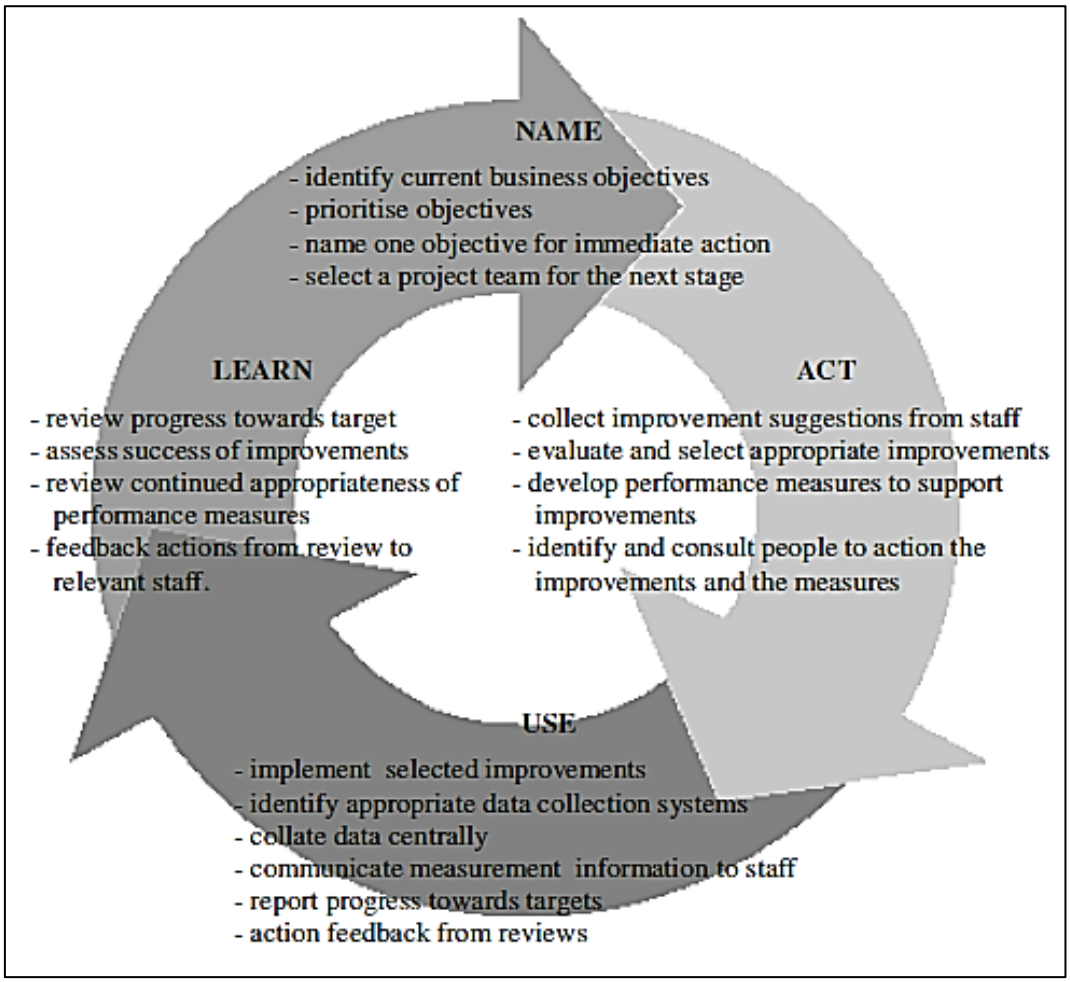


Figure 5.6: The Continuous Strategic Improvement Process (CSI) for SMEs

Source: Hudson, Lean, & Smart, 2001.

5.4.2. PMM for SMEs: A financial statement-based system

This framework developed by Bahri et al. (2017), connects the business processes of a SME with financial results in its income statement and balance sheet. Bahri et al. (2017) attempted to address the main problems that SMEs encounter when implementing a PMS: limited financial- and management resources and the absence of explicit/formal strategies (Garengo et al.2005; Hudson, Smart & Bourne, 2001). Their solution was to design a system that is built around information that is already available to SMEs, i.e its financial statements.

Bahri et al. (2017) claimed that a SME's strategy is often revealed implicitly through its activities and business processes, which correlates with Garengo's view (Garengo & Biazzo, 2012). Bahri et al. (2017) identified a set of practices (drivers) that significantly influence figures in the financial statements (results).

The chosen financial statements are the income statement and balance sheet, because:

- Of their general availability in SMEs;
- They are the main sources of information used by stakeholders, such as funding organisations;
- Financial ratios can be calculated from them which is important for decision making in SMEs;
- The income statement is the most common instrument that SMEs use to evaluate performance and risk.

Bahri et al. (2017) chose the six main items (according to them) from the financial statements that should be monitored as results:

- From the income statement:
  - Sales;
  - Production overheads;
  - Selling and administrative expenses;
  - Net profit; and
- From the balance sheet:
  - Net fixed assets; and
  - Current assets.

By analysing the business processes of more than a 100 manufacturing SMEs, Bahri et al. (2017) found certain business processes that are the most likely drivers of the six financial outcomes. Their model is shown below as Figure 5.7. It is therefore to a certain extent a generic performance measurement and management system for manufacturing SMEs. The model points SME management to the areas that drive key financial results, without having a formal strategy as starting point. SMEs can therefore “get of the mark” with a PMS quicker and with fewer resources.

However, the model is still very theoretic and vague with a weak connection between strategy and operations. In the researcher’s view, considerable effort is still needed to reach specific measures for the driver processes.

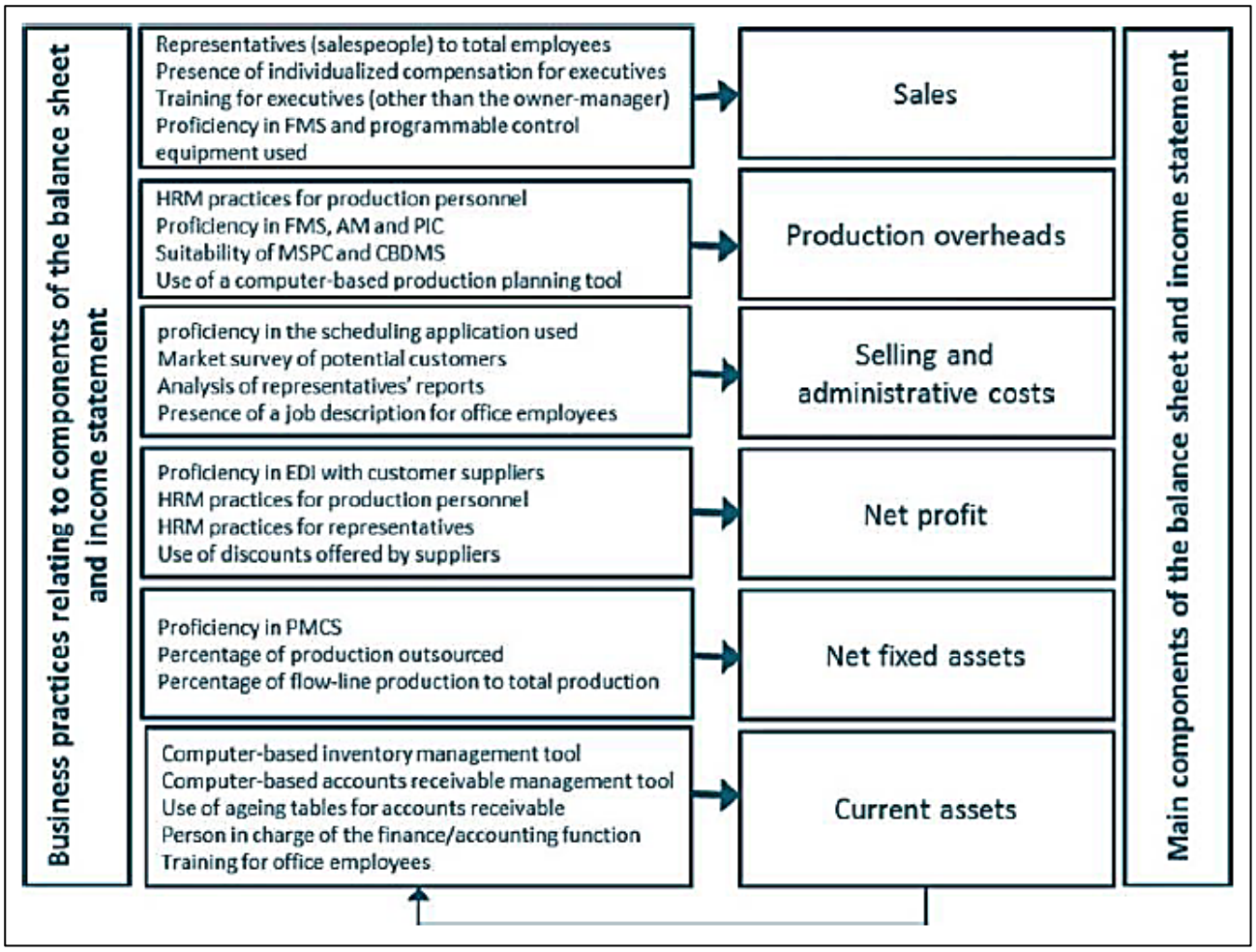


Figure 5.7: PMMS for SMEs – business processes (drivers) influencing key financial outcomes

Source: Bahri, St-Pierre & Sakka, 2017.

5.4.3. A Circular Methodology for strategic PMS development in SMEs

This PMS framework was developed by Garengo and Biazzo (2012) and addresses the problem of SMEs not having a formal strategy and not having the resources and knowledge to develop one the traditional way. It is basically a Balanced Scorecard with a novel method of identifying the SME's strategic objectives and subsequent strategy map development.

According to Garengo and Biazzo (2012), SMEs are operationally focussed and lack formal strategy. However, the SME's strategy is implied by what is being already measured operationally in a SME. Instead of the traditional "top-down" approach as starting point for strategy development, a "bottom-up" approach is followed. The top-down approach traditionally starts with top management developing a mission and vision for the company with subsequent top-level strategy development. This top-level strategy is then translated and "cascaded" down to operational levels. This methodology for PMS development is used by the BSC and most other PMS frameworks (Garengo et al., 2005).

In the circular approach, the actual operational measures that every individual in the company monitor are used as starting point for a bottom-up method of "unveiling" current strategy and developing the eventual desired strategic objectives.

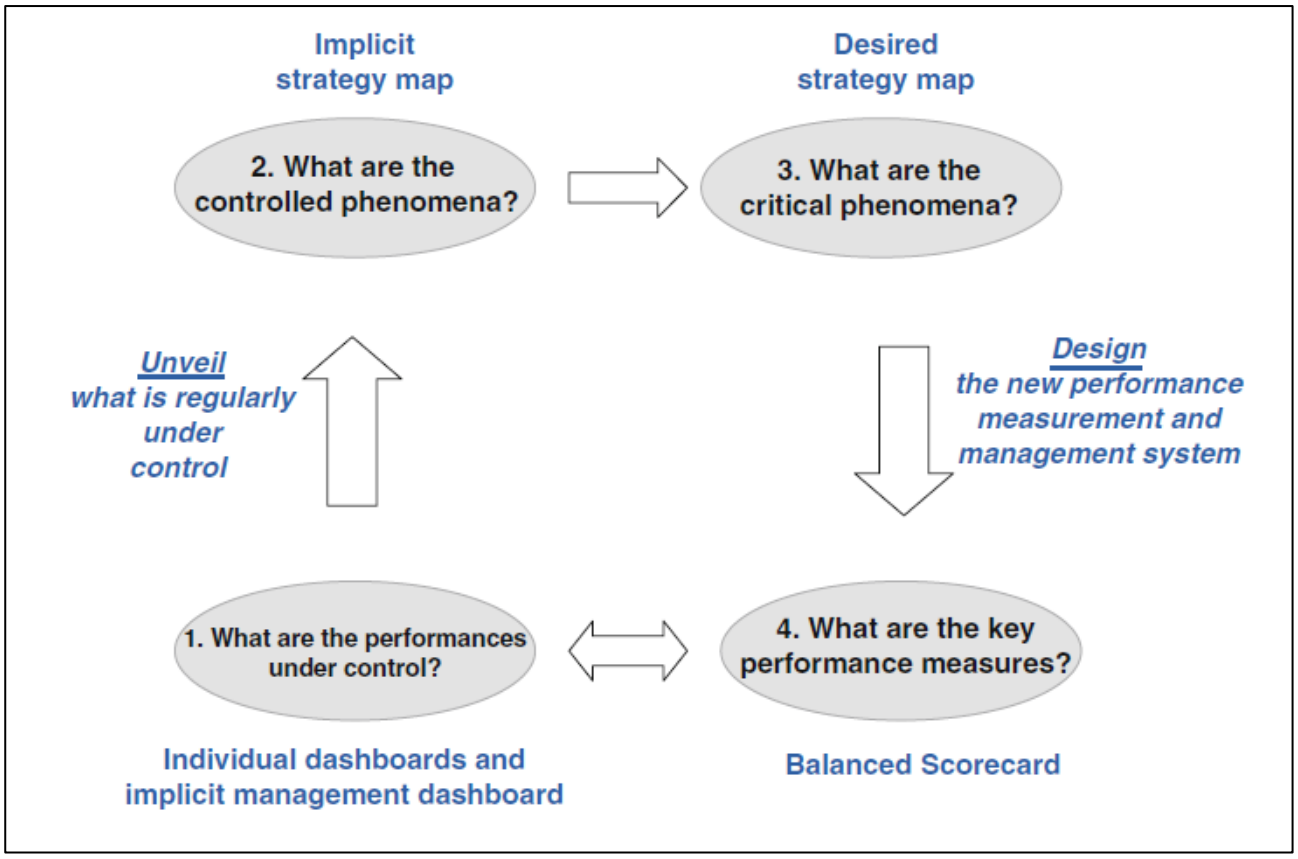


Figure 5.8: A circular methodology to design and implement a PMS in a SME

Source: Garengo et al., 2005.

As shown in Figure 5.8, the circular method consists of two stages, each having two steps. In the *first stage* the individual dashboard of measures of employees are analysed, grouped and allocated to the four perspectives of a BSC. These two steps unveil the implicit strategy of the SME – it shows what is regarded as important enough to monitor and control: the critical success factors (CSFs). By analysing the CSFs further, they are coupled - and translated to critical objectives that they represent. The critical objectives are then mapped to result in the implicit strategy map as outcome of Stage 1.

In Stage 2, the objectives in the implicit strategy map are further analysed for truly being strategic or just important. The non-strategic objectives are eliminated with only the true strategic objectives retained. Additional strategic objectives can be added to form the desired strategy map. Finally, the measures that support these objectives are developed to complete the desired SME dashboard.

It is this researcher's view that, although the circular methodology goes a long way in simplifying strategy development and PMS design in a SME, the practical implementation according to this method requires highly-specialised know-how of PMS design in general and the balanced scorecard

specifically. For instance, each recorded current measure must be grouped according to typology, judgement about horizontal and vertical balance of the implicit strategy map, as well as deciding whether recorded measures are of strategic nature or just important/urgent. The question must be asked if the traditional top-down approach does not in fact require less management resources than the bottom-up version that Garengo and Biazzo (2012) proposed as alternative to simplify PMS design.

5.4.4. The Business Profile Benchmarking approach

One of the main problems when implementing a strategic PMS in a SME, is that it does not address the immediate needs of the business (Hudson-Smith & Smith, 2006); it does not have enough short-term benefits for the owner. SME owners/managers are in general therefore not highly motivated to implement a PMS, given further the amount of resources the process will consume. Dalrymple (2004) addressed this problem by benchmarking across a wide range of financial- and non-financial measures in similar businesses.

The benchmarking approach “lures” the SME owner into the process because they get the immediate advantage of comparing their business with their peers in a range of important areas. Analysis of their business’s relative position facilitates the identification of opportunities and surfacing of strategy, which sets the SME on its way towards the implementation of a strategic PMS. This is followed up by linking the surfaced strategy with operations.

Dalrymple (2004) used the “Benchmark Index” as database. This United Kingdom originated index is one of the most comprehensive sources of SME performance data in the world (Benchmark index, 2018). A comprehensive range of measures is gathered from the SMEs covering financial-, customer-, innovation-, personnel- and excellence data. This data is then compared to the Benchmark Index to determine the SMEs relative position.

Extensive outside assistance from a specialist is required for the eventual implementation of a strategic PMS – but it goes a long way in getting SMEs started on the PMS path, in the researcher’s view.

The actual practical use of the system is dependent on a suitable benchmarking standard. It does not give any guidance to achieve a balanced system.

5.4.5. The Small Business Performance Pyramid

The creators of the Small Business Performance Pyramid (Watts & McNair-Connolly, 2012), depicted in Figure 5.8, suggested a very simple, generic, prescriptive set of measures – which they deemed essential for a SME’s survival and growth. These measures are in the areas of liquidity, productivity and sustainability. Under sustainability, measures that indicate profitability and customer loyalty are included. This is a very simple and resource-efficient framework. It is not fully balanced because human resources/learning is omitted. It also does not provide for the accommodation of strategic measures.

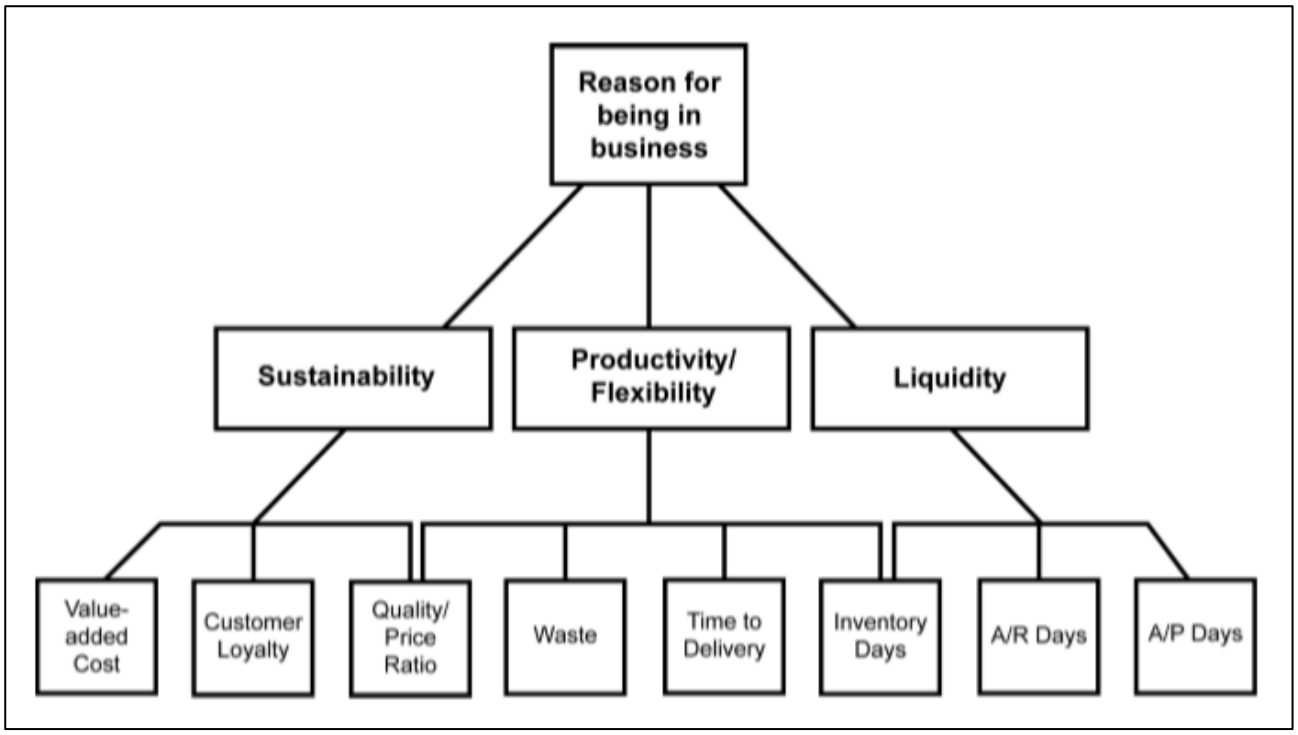


Figure 5.9: Small Business Performance Measurement Pyramid

Source: Watts & McNair-Connolly, 2012: 20.

5.4.6. Flexible Performance Measurement (FPM) System for SMEs

The creators of the Flexible Performance Measurement (FPM) system (Pekkola et al., 2016) proposed a solution for a PMF that addresses the turbulent environment that characterises SMEs (Cocca & Alberti, 2010; Rompho, 2011). SMEs need to adapt quickly to market shifts and strategy changes. Their model, shown in Figure 5.10, is a two-part system consisting of (i) a set of core, stable financial/profitability measures, plus (ii) a set of supporting measures that change according to a changing strategy, market, environment, etc.

Pekkola et al (2016) argued that, because SMEs are flat organisations, they can quickly and easily change the supportive measures in response to a changing strategy. The essential financial measures (like profitability) remain the same, giving stability to an important dimension of the PMS.

The FPM is a very resource efficient PMS to start off with – but with financial measures only. This results in a very unbalanced system until strategic measures are also incorporated.

The creators of the system believe that it is easy and quickly for SMEs to accommodate strategy changes in a PMS. The limitation/weakness of this model is that it is based on this critical assumption that rests on only one case study. Other studies have found that PMSs in SMEs fail because of frequent strategy changes, although that was with the application of the BSC (Rompho, 2011).

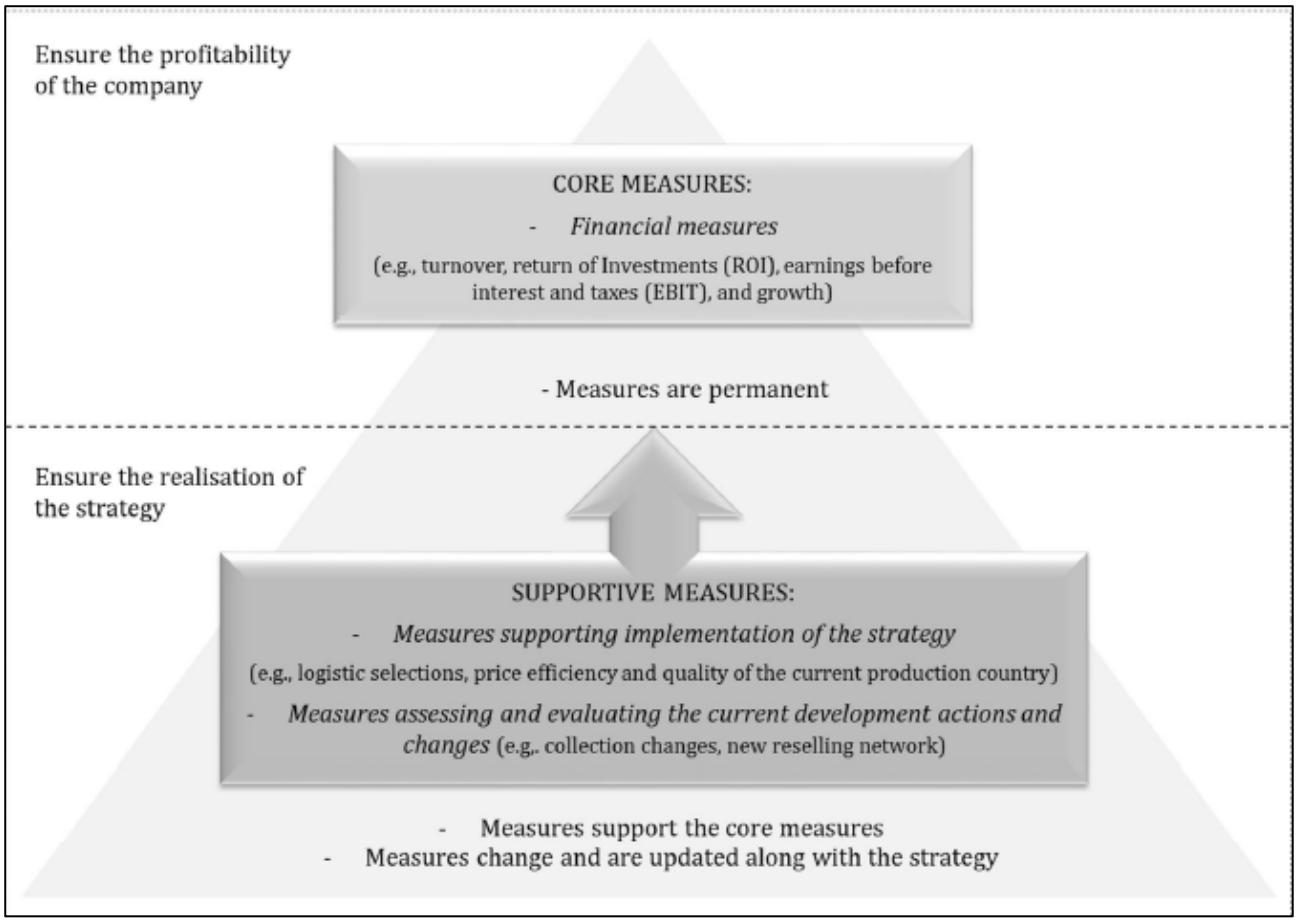


Figure 5.10: The Flexible Performance Measurement System for SMEs

Source: Pekkola, Saunila, & Rantanen, 2016.

5.4.7. The Performance Measurement and Management Control System

This PMS model, proposed by Jamil and Mohammed (2011), combines both performance measurement and management control in a PMF. The model emphasises the increasing need for management control as a SME grows. Management control systems liberate management from routine tasks to focus more on strategic activities. There should be a match between an organisation's management control system and strategy (Jamil & Mohamed, 2011). As in most PMS models, strategy is the driving force of this model through derived financial- and non-financial measures, but it is balanced by "elements/levers of control", as illustrated in Figure 5.11:

- Belief control: Communicating the core values to which employees execute their tasks.
- Boundary control: Focussing employee behaviour to persue organisational goals within the prescribed acceptable area.
- Diagnostic control system: Evaluating the organisation's performance in the critical performance areas, and also freeing up management time through management by exception.
- Interactive control system: Facilitating double-loop learning that stimulates continuous improvement and strategic adaption.

- Although the model is somewhat vague with only very general principle guidelines, the important point is that it brings management control into the PMS, which addresses one of the primary causes of SME failure (Collis & Jarvis, 2002; Garengo & Sharma 2014; Taticchi et al., 2008).

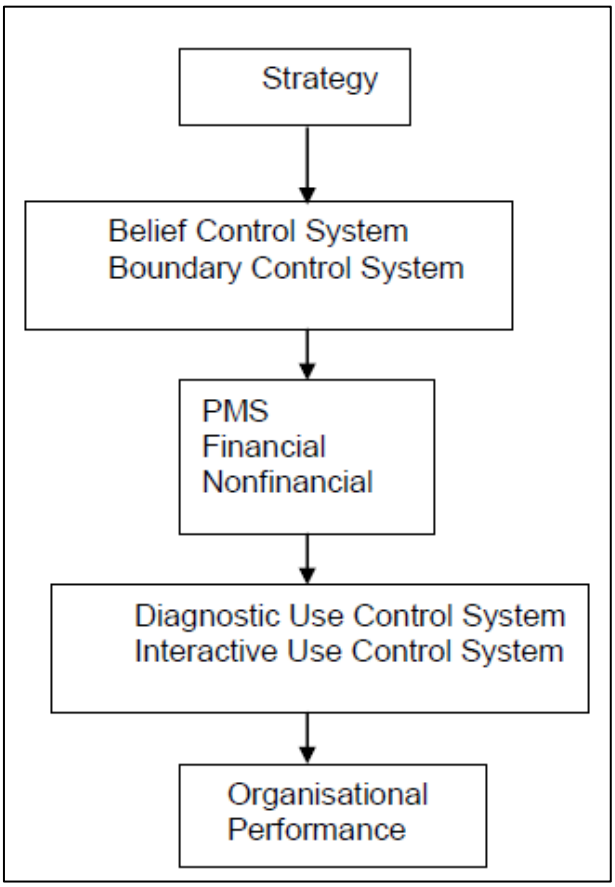


Figure 5.11: Performance Measurement and Management Control System for SMEs

Source: Jamil & Mohamed, 2011.

5.5. COMPARISON OF FRAMEWORKS

Table 5.5, at the conclusion of this chapter, shows all frameworks discussed above with a score given to the degree of compliance with each requirement/characteristic. The score is based on the researcher's own judgement and is therefore subjective. However, the rationale for this comparison was to highlight relative strengths and weaknesses and to identify attributes that can be used to build the ideal new framework. The scoring criteria are defined in more detail below in Table 5.4.

The various frameworks (Table 5.5) differ notably with regard to a top-down or bottom-up approach. The strategy and stakeholder-driven frameworks follow a top-down approach, with guidance on how to create unique, tailored measures. This is generally a more resource-intensive approach. Frameworks using a bottom-up approach are much more prescriptive in varying degrees as to specific measures that are required. The frameworks with a bottom-up approach are generally more resource efficient.

Table 5.4: Definition of framework characteristic scoring criteria

Characteristic / Requirement	Definition
balance	Fully balanced if minimum 4 perspectives present; partly balanced if minimum 3 perspectives
causal relations	Logic must show drivers and outcomes
strategy unveil/map	Process leads to unveiling/mapping existing strategy or facilitate to highlight strategic opportunities
contingent strategy approach	Can start without strategy and be able to accommodate it at later stage
accommodate strategy changes	Extent to which PMS needs to be re-designed as a result of strategy change
focus on survival: the needs of the owner and bank	Prominance given to cash flow and liquidity measures specifically
availability of support	Likelyhood of the availability of, and affordability of support with implementation
clarity and simplicity	Ease of understanding the logic and simplicity of extent of the system
process orientation	Focussing more on business processes than functions/ silos
resource efficient	Extent of management and financial resource requirements with implementation
breadth	The whole organisation is addressed with most functions and main processes included

Source: Researcher's compilation.

The small frameworks on average have indeed a better score than the big frameworks – as would have been expected.

The frameworks with the highest scores are the Small Business Performance Pyramid (Watts & McNair-Connolly, 2012) and the Circular Method BSC adaption (Garengo & Biazzo, 2012). These two frameworks' strengths and weaknesses are interestingly completely opposite. The Small Business Performance Pyramid's (SBP) strength is resource efficiency and easy implementation with its weakness that it does not take strategy into account at all. In contrast, the Circular Method's strength is the way it accommodates strategy in a BSC framework with its weakness being difficult, resource-intensive implementation.

The lowest scores went to the performance measurement and management framework (Jamil & Mohamed, 2011), EFQM, and continuous strategy improvement process for SMEs (Hudson et al., 2001; 2006).

The requirements/characteristics that are best represented, are "balance" and "breadth". The most lacking are "survival driven", strategy development" and "support availabilty".

A variety of principles and approaches emerged from these frameworks to address some of the requirements that generally present a problem to SME PMSs:

(a). Resource efficiency

- An incremental approach to implementation (Hudson-Smith & Smith, 2006).
- Prescriptive measures to reduce the amount of analysis and design required (Bahri et al., 2017; Dalrymple, 2004; Watts & McNair-Connolly, 2012).
- Simple decision support rules to identify measures (Maltz, et al., 2003).

(b). Strategy development

- Unveiling and mapping existing strategy (Garengo & Biazzo, 2012).
- Suggestion/prompting of strategy through comparison with benchmarks (Dalrymple, 2004).
- Suggested drivers of financial outcomes (Bahri et al., 2017).

(c). Strategy changes/Volatile environment

- Do not take strategy into account (Bahri et al., 2017; Dalrymple, 2004; Watts & McNair-Connolly, 2012).
- Have a stable part in the PMS that is not affected by required changes in strategy plus a part that changes as needed (Pekkola et al., 2016).

5.6. CHAPTER CONCLUSION

As can be seen in Table 5.5, none of the existing frameworks, for any size business, fulfills all the requirements identified in Figure 4.4 for a SA SME PMF. Most of the PMFs are not practical for use in SMEs because of the skill level of consultant and the management- and financial resources that would be required for implementation.

However, for each different requirement, at least one framework always provides a solution. This indicates that the ideal PM framework for a SA SME could most probably be a combination of parts of these frameworks.

Table 5.5: Comparison of some existing PM frameworks

Size	no	Performance measurement framework	Created by who and when	balance	causal relations	strategy unveiling	contingent strategy	strategy changes	drive survival	support available	resource efficient	clarity & simplicity	breadth	process orientated	PMF total score
Big PM frameworks	1	The Balanced Scorecard	Kaplan & Norton 1992	●	●	◍	○	○	○	◍	○	◍	●	◍	45%
	2	SMART (strategic measurement analysis and reporting technique) Pyramid	Lynch and Cross, 1991	◍	◍	○	◍	◍	○	○	○	◍	◍	○	27%
	3	The Performance Measurement Matrix (The Suportive performance measures)	Keegan et al., 1989	◍	○	○	◍	◍	◍	○	◍	◍	◍	○	32%
	4	The Performance Prism	Neely et al., 2002	●	●	◍	○	○	○	○	○	○	◍	◍	32%
	5	The Results and Determinants Framework	Fitzgerald et al., 1991	◍	◍	○	◍	◍	◍	○	○	◍	◍	○	32%
	6	EFQM - European Foundation for Quality Management's business excellence model	EFQM, 1991	●	○	○	◍	◍	○	○	○	○	◍	○	23%
	7	DMP - The Dynamic Multi-dimensonal performance measurement framework	Maltz et al., 2003	●	○	○	●	●	◍	◍	◍	◍	◍	○	45%
Small PM frameworks	8	Continuous strategic improvement process for SMEs (CSI)	Hudson et al., 2001, 2006	○	○	○	○	◍	○	○	◍	◍	○	●	23%
	9	The Business Process benchmarking approach	Dalrymple 2004	◍	○	◍	◍	◍	○	◍	◍	◍	◍	◍	41%
	10	The performance measurement and management framework	Jamil & Mohamed, 2011	◍	◍	○	○	○	○	○	○	○	◍	○	14%
	11	PMM for SMEs: a Financial statement-based system	Bahri et al., 2017	◍	◍	○	◍	◍	○	○	◍	◍	◍	◍	36%
	12	Circular methodology for strategic PMS development in SMEs using the BSC	Garengo & Biazzo, 2012	●	●	●	○	○	○	◍	○	◍	●	◍	50%
	13	FPM - Flexible performance measurement system for SMEs	Pekola et al., 2016	◍	◍	○	●	◍	○	◍	◍	◍	○	◍	41%
	14	The small business pyramid	Watts, McNair, 2012	◍	○	○	○	●	●	●	●	●	◍	◍	59%
	Total score per PMF requirement/ characteristic			**64%**	**39%**	**18%**	**36%**	**43%**	**14%**	**25%**	**29%**	**42%**	**50%**	**32%**	

Legend: fully compliant ● partly compliant ◍ non-compliant ○

Source: Researcher's compilation.

CHAPTER 6:
THE BDSC – PROPOSED PMS FRAMEWORK FOR SMES

In this chapter, a new PMF, named the Business Development Scorecard (BDSC), is developed that addresses the shortcomings of existing frameworks as compared in Table 5.5.

The content of this chapter builds on the PMS design methodology used in the BSC, as explained in Chapter 3. Logical conclusions from existing literature that lead to the development of the new framework are highlighted, whereafter a step-by-step development process of the BDSC follows.

6.1. KEY CONCLUSIONS THAT SHAPED THE BDSC

Several key conclusions from the literature, discussed in aforegoing sections and highlighted below, shaped the design of the proposed new framework.

6.1.1. Availability of affordable support

It is clear from the discussion of PMS implementation in Chapter 3 and the degree of complexity of most existing PMFs analysed in Chapter 5, that specialist external assistance would most likely be required to implement a PMS in a SME – irrespective of the PMF used. The problem, as stated previously, is that specialist assistance is scarce and expensive to SMEs (Section 4.7.4)

The researcher conludes that, if affordable support is not available for a particular PMF, it will probably not be of practical use. Accountants are the most trusted and popular source of management advice to SMEs in SA (and worldwide) (BER, 2016; Collis & Jarvis, 2002; Kirsten, et al., 2015). Accountants are readily available and generally affordable to SMEs. It is this researcher's conclusion and opinion that, for a PMF to be of practical use to SMEs in SA, it must be *within the skillset of the average accountant* to use it in assisting SMEs with PMS implementation.This is also in line with the thoughts of Kirsten et al. (2015).

6.1.2. Very resource-efficient implementation

The importance of resource efficiency of PMS implementation was emphasised in Section 4.6.2.3. The researcher also concludes that, if a PMF does not fulfill this requirement, it will probably not be of practical use.

6.1.3. Driven by the need for survival

It has been stated in Section 4.4, that for a SME, the primary component in its definition of success, is survival, i.e. long-term endurance. As the vast majority of SMEs in SA fail before reaching the established age of 3.5 years, a PMS for SMEs must be driven by the need for survival. The dire unemployment figures in SA emphasise this requirement even further.

6.1.4. Role of strategic measures

The requirement identified in Sections 4.5.2 and 4.6.2.1 that strategic measures in a SME PMS should be incorporated on a contingent basis, is very significant. In the researcher's opinion, this finding is the key to the development of a practical PMF that will be widely accepted. The researcher's observation is that, if a PMS is not driven by strategy or other stakeholders' needs, the characteristic of "uniqueness" of objectives for a PMS largely falls away.This is also apparent by looking at some of the different framework designs discussed in Chapter 5 (Bahri et al., 2017; Dalrymple, 2004; Maltz et al., 2003; Watts & McNair-Connolly, 2012). It is evident from the implementation process in Chapter 3 and the discussion of frameworks in Chapter 5, that deriving unique strategic objectives and measures for a PMS implementation adds significantly to the complexity and resource intensity of the process.

The researcher therefore concludes that omitting strategic measures in a PMS enables the *use of generic objectives and measures* – thereby providing a possible solution to a practical, widely-used PMF for SMEs.

6.2. PROPOSED SOLUTION

The solution is found by combining the strengths of the two best-scoring frameworks in Table 5.5, i.e. the Circular Method BSC adaption (Section 5.4.3) and the Small Business Performance Pyramid (SBP) (Section 5.4.5). A third framework, the Flexible Performance Measurement (FPM) system (Section 5.4.6), is used as the 'glue' to combine the first two frameworks. As noted in Section 5.5, the two best-scoring frameworks have completely opposite attributes. The weaknesses of the one is compensated by the strengths of the other, and *vice versa*, as illustrated in (Figure 6.1). The Circular BSC needs a relatively stable environment, whereas the SBP is not affected by changes in strategy or the business environment. The only requirement that cannot be fulfilled by either of the two frameworks, is the ability to accommodate strategy on a contingent basis (Figure 6.1).

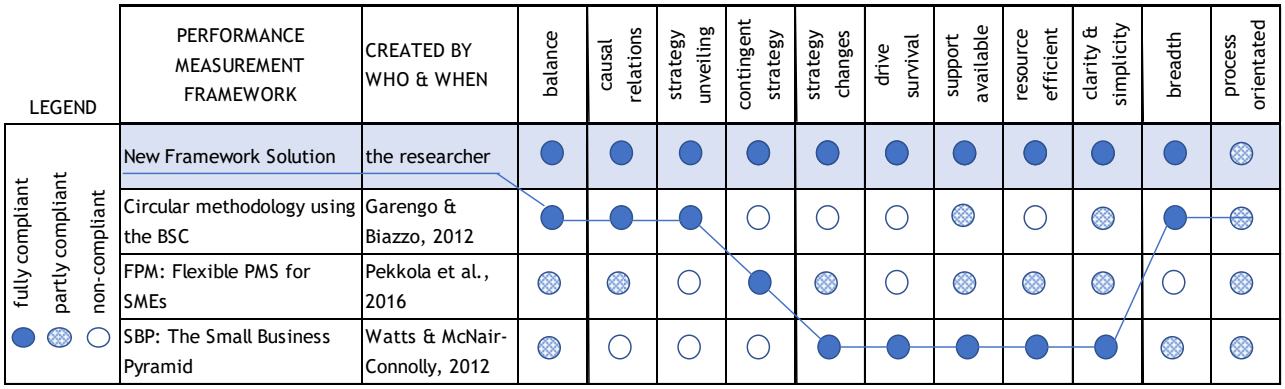


Figure 6.1: SME PMF solution = integration of three existing frameworks

Source: Researcher's compilation.

This is where the FPM contributes with its dual system composition (Figure 6.2). The solution is therefore a two-part PMS (as in the FPM) with a stable prescriptive component (as in the Small Business Pyramid) plus an independent adjustable strategic component (as in the BSC). The new PMS can start off with the stable part and when required, add the adjustable, strategic part (Figure 6.2).

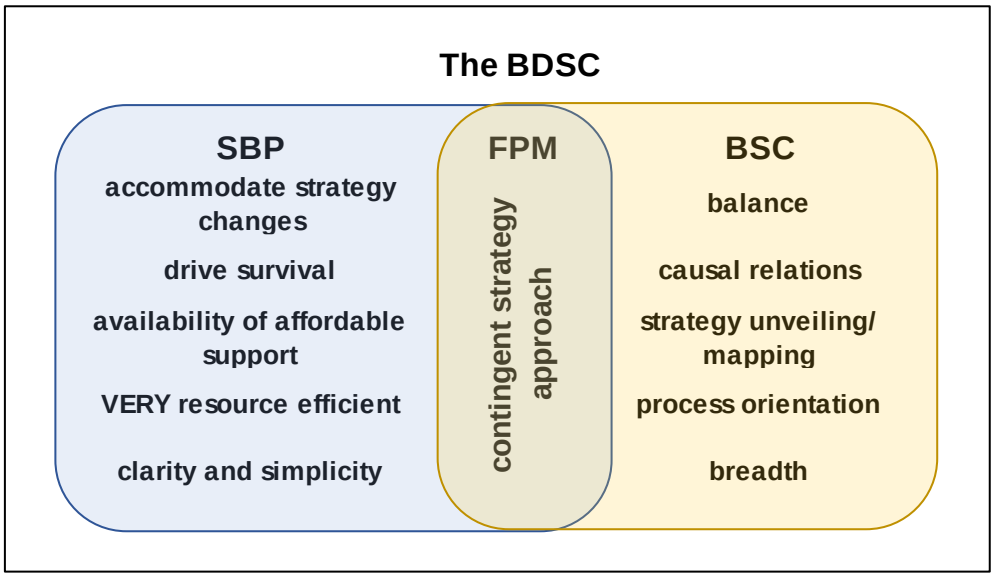


Figure 6.2: The BDSC combines the strengths of the SBP, FPM and BSC

Source: Researcher's compilation.

In the light of the conclusions above, the researcher proposes *a solution* for a PMF with the following attributes:

(a). Phased implementation – enabled by the two-part structure as in the FPM.

(b). Phase 1: Consisting of generic objectives that will drive survival of the SME and/or are regarded as essential objectives for SMEs. This is the stable component of the BDSC as in the SBP.

(c). Phase 2: Adding unique strategic objectives when the SME has grown to a critical size, or when management resources are deemed suficient. This is the dynamic component of the BDSC which is a conventional BSC using the Circular Methodogy to unveil and map the strategy.

(d). The structure of the BSC framework is retained for the BDSC and adapted to accommodate the attributes in (a), (b) and (c).

The new BDSC framework, which is basically an adapted BSC, has all the attributes to fulfill the requirements as stated in Figure 4.4. The proposed solution in the format of the BDSC framework is shown in Figure 6.3 below.

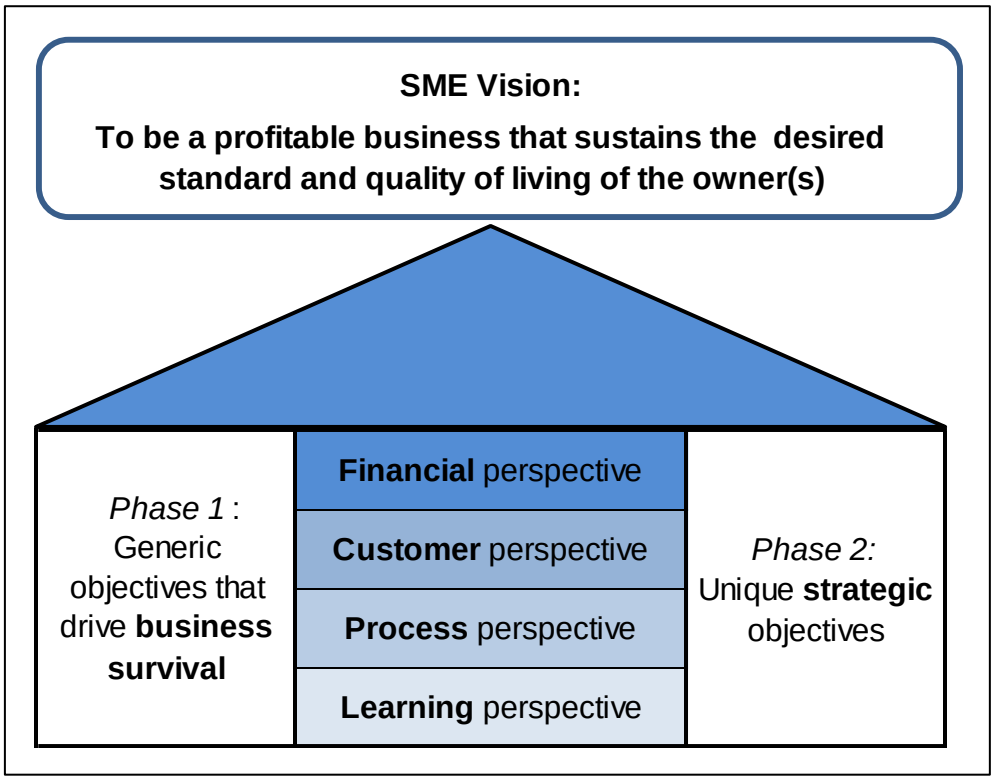


Figure 6.3: Conceptual solution for new SME PMF – an adapted BSC

Source: Researcher's compilation.

6.3. HOW THE BDSC FULFILLS THE SME PMF REQUIREMENTS

The strength of the *Circular Method BSC adaption* (Section 5.4.3) is its logic and structure of including all important perspectives, causal relationships and strategy development and execution. The essential and survivalist measures of Phase 1 are generated within a BSC framework – thereby combining the SBP with the BSC. These stable, generic measures can be accommodated in the structure of a BSC, but not *vice versa* for the dynamic measures of a strategy-driven BSC. Phase 1 is therefore a BSC that contains only (stable) generic essential and survivalist measures. Because Phase 1 measures are already in a BSC structure, the new system can seamlessly 'grow' into Phase 2 when strategic measures need to be added (Figure 6.2 & 6.3). When proceeding eventually to Phase 2, strategic objectives can be identified with the aid of the circular approach (Garengo & Biazzo, 2012) or just asking the standard BSC OIQs for every perspective (Niven, 2014).

The SBP (Section 5.4.5) has a clear, simple logic – addressing exactly what to measure without the need for a resource-intensive analysis process. It prescribes measures in important areas as essential for SMEs. It is totally disconnected from the impact of strategy changes and therefore a stable system. This attribute makes it easy to implement, with the assistance of the average accountant most probably being sufficient. The new framework uses this principle by prescribing generic measures that will drive survival of a SME and/or are essential for SMEs in general. This will be Phase 1. However, as in the SBP, Phase 1 has limitations of not being fully balanced, not showing causality, and not being able to accommodate strategic measures.

The FPM (Section 5.4.6) consists of a two-part structure. It has a stable part of core measures and a dynamic second part with measures that adapt alongside strategy changes. The new framework uses this principle to 'add' the BSC as a second phase. This addresses the shortcoming of not being able to accommodate strategic measures. The FPM acts like a 'schock absorber' between Phase 1 (SBP) and Phase 2 (BSC).

The diagram in Figure 6.4 shows how the three frameworks (BSC, FPM & SBP) are transformed into the new framework (the BDSC) and how all the requirements of a SME PMF in SA (Figure 4.4) are addressed.

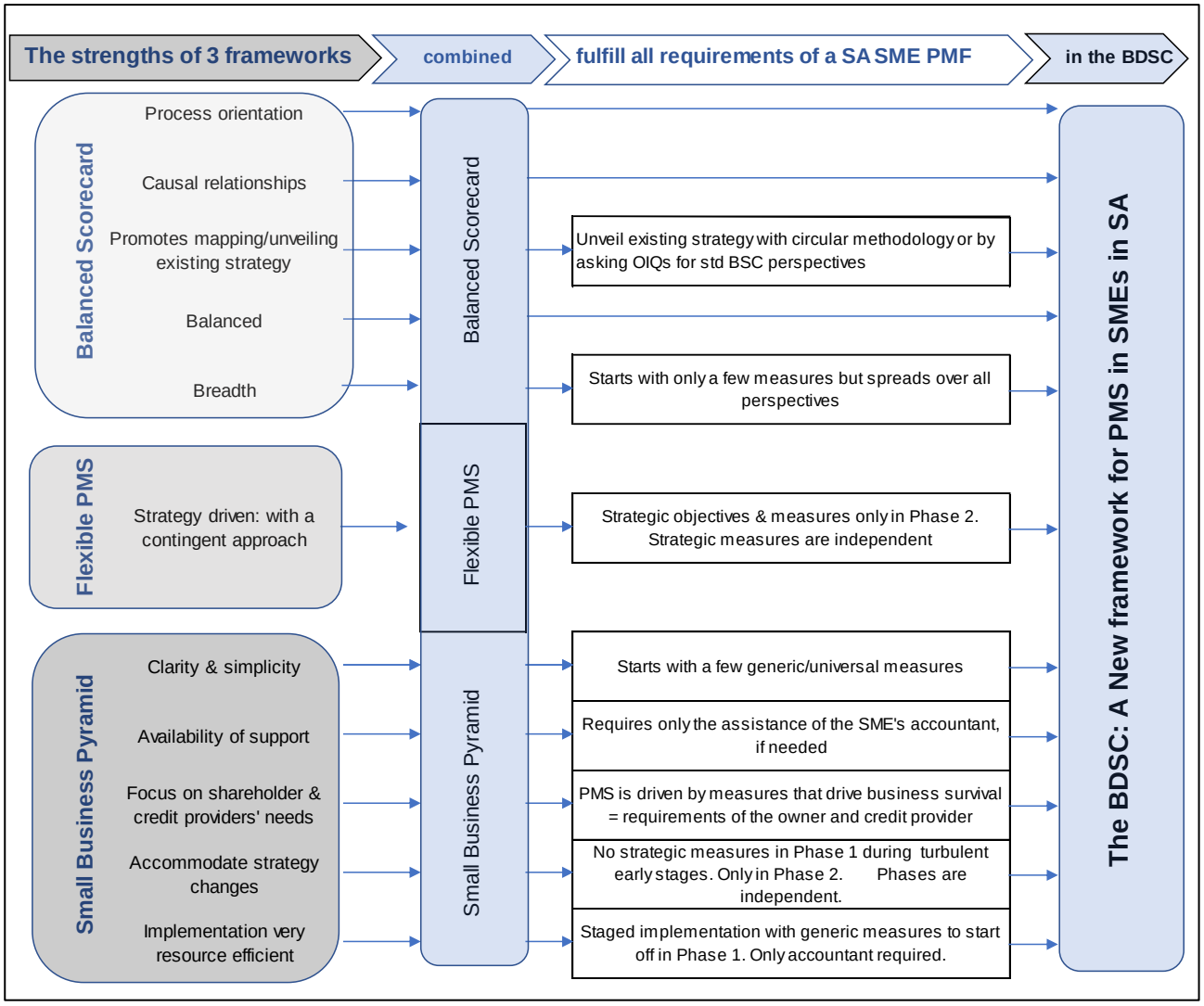


Figure 6.4: Transforming three PMFs (BSC, FPM, SBP) into the BDSC

Source: Researcher's compilation.

6.4. APPROACH AND METHODOLOGY FOR DESIGNING THE NEW FRAMEWORK

6.4.1. Phase 1: Generic objectives that drive business survival

The logic behind Phase 1 of the development of the framework was to use the power of measurement to improve the performance of (some) generic activities that SMEs in SA should excel in to increase their chances of success and to drive long-term survival . These critical activities or key performance areas were derived from the *common causes of failure and other factors that impact negatively on SA SMEs* plus objectives and measures from the literature that fall in the category of "*essential measures that any SME should have*" (the bottom-up measures), as noted in Chapter 4.

It is not the aim in this thesis to prove that *all* activities that SMEs need to excel in were identified through this method; the thesis merely demonstrates the principle used to design the new framework. The principle of the proposed framework is, firstly, to identify some common or universal "things" SMEs should do well in order to survive (or lower risk of failure), whereas the standard BSC framework identifies the "things" an organisation should do well in order to execute its strategy.

This addresses Phase 1 of the BDSC: Finding universal objectives and measures that contribute to SME success and drive survival.

The methodology used, was to suggest a set of general counter-objectives for each common cause of SME failure and negative impacting factor, that was within the control of the SME owner/manager. The counter-objectives and resultant key performance areas were developed from the literature study and the researcher's own experience as SME owner. Validation of these suggested counter-measures was done through the process described below and in Section 7.9.

To these counter-objectives were added additional objectives from literature that were viewed by researchers as universally "essential for SMEs", as illustrated in the "bottom-up" input of measures into the system requirements in Figure 4.4.

Following the BSC design procedures noted in Chapter 3, the next step was to build a "strategy map" containing these objectives. All the objectives were subsequently placed in the appropriate perspectives of a standard BSC framework to demonstrate balance. Cause-and-effect among objectives was shown by linking the relevant objectives in BSC strategy map format. The strategy map has the common vision/success of SMEs at the top:

> *Being a profitable business that sustains the desired standard and quality of living of the owner(s).*

From these findings, inferences were subsequently drawn and comparisons with the relevant literature were made that resulted in the "performance map" (vs. strategy map of the BSC) of the proposed new framework. These generic objectives were then translated into proposed supporting measures that populate the scorecard of the new framework.

Phase 1 of the proposed new PMF (the BDSC), therefore consists of (i) a *performance map* containing generic objectives linked in general cause-effect relationships, and (ii) a *scorecard* of suggested measurements to support these objectives.

The vision of success, objectives and measures were then validated for general acceptability by means of a survey among 20 participants, consisting of 12 SME owners and 8 accountants. The survey was conducted by the researcher through personal semi-structured interviews with individual participants. Participants were asked to express their level of agreement on a 5-point Likert scale with specific statements on a questionnaire. The logic of the methodology followed in developing Phase 1 of the new framework is depicted in Figure 6.5

Objectives were validated by asking participants to express their level of agreement that the proposed objectives were effective counter-objectives, within the control of the SME owner, for addressing specific causes of failure and problems faced by SMEs.

Measures where validated for ease of implementation, by asking participants to express their level of agreement that a SME owner will be able to administer (implement) the measures on the scorecard with only the assistance of his/her accountant – if assistance was required.

The *vision of success* that drives the BDSC *was validated* by asking participants to express their level of agreement with the stated vision on the questionnaire.

The results of the survey would give a reasonably accurate indication of the practical usability of the proposed new framework. Addendum A shows the questionnaire used for validation. Addendum B shows the details of the participant sample.

6.4.2. Phase 2: Unique strategic objectives

As per the requirement for a contingent approach to strategic measures from Figure 4.4, formalisation of strategy will only be required eventually when the SME matures and grows, and it becomes necessary to incorporate the strategic objectives as drivers of the company's PMS. Taking into account Bäuml's findings (Bäuml, 2014) and the fact that the vast majority of SMEs are small (<50 employees), it may never be necessary to proceed to this stage for most SMEs. Strategic objectives and measures can therefore be added as a second phase in the PMS – if and when required.

A simple method of documenting the SME's existing strategy to start off, is the key in this researcher's opinion, and in line with the circular approach (Garengo & Biazzo, 2012).

As has been mentioned, a key attraction of the BSC for SME application is that it is suited for strategy development as well (Niven, 2014; Rohm et al., 2013). In the researcher's experience it is a do-able task to map the basic existing strategic themes of a SME, by just asking the standard OIQs in the different BSC perspectives, on condition that a basic knowledge of the BSC exists. An example of an application is shown in Chapter 7 which the researcher implemented in an existing SME. It is the

researcher's conclusion that implementing Phase 2, using either the circular or standard approach, will in most cases still require guidance from someone with a basic understanding of the logic and principles of the BSC..

Figure 6.5 below shows the logical flow of development of the new PMF to be used for SMEs in a South African context.

Four key conclusions from literature lead to a proposed solution for a new PMF. The solution combines elements of three existing frameworks and contains generic objectives that drive survival of a SME.

Firstly, these generic objectives were derived from the causes of failure and problems facing SA SMEs, by generating counter-objectives as solutions to causes of failure and problems. The counter-objectives were validated by a sample of 20 potential users.

Secondly, objectives that are essential for SMEs to measure were identified and added. All these generic objectives were then translated into clear, specific language to ensure measureability.

Standard BSC development logic was used to populate the perspectives of a BSC with the generic objectives. From this exercise flowed logical conclusions to develop a *Performance Map* for Phase 1 of the BDSC.

Typical measures that would support the generic objectives of the Performance Map were generated and validated by the same sample of 20 potential users. These measures were then used to populate the *Scorecard* for Phase 1 of the BDSC, thereby completing this phase.

Phase 2 of the BDSC consisted of adding strategic objectives and measures to the *Performance Map* and *Scorecard.* This process can be done using the Circular approach of Garengo et al. (2012) or the standard BSC approach – depending on the available skills.

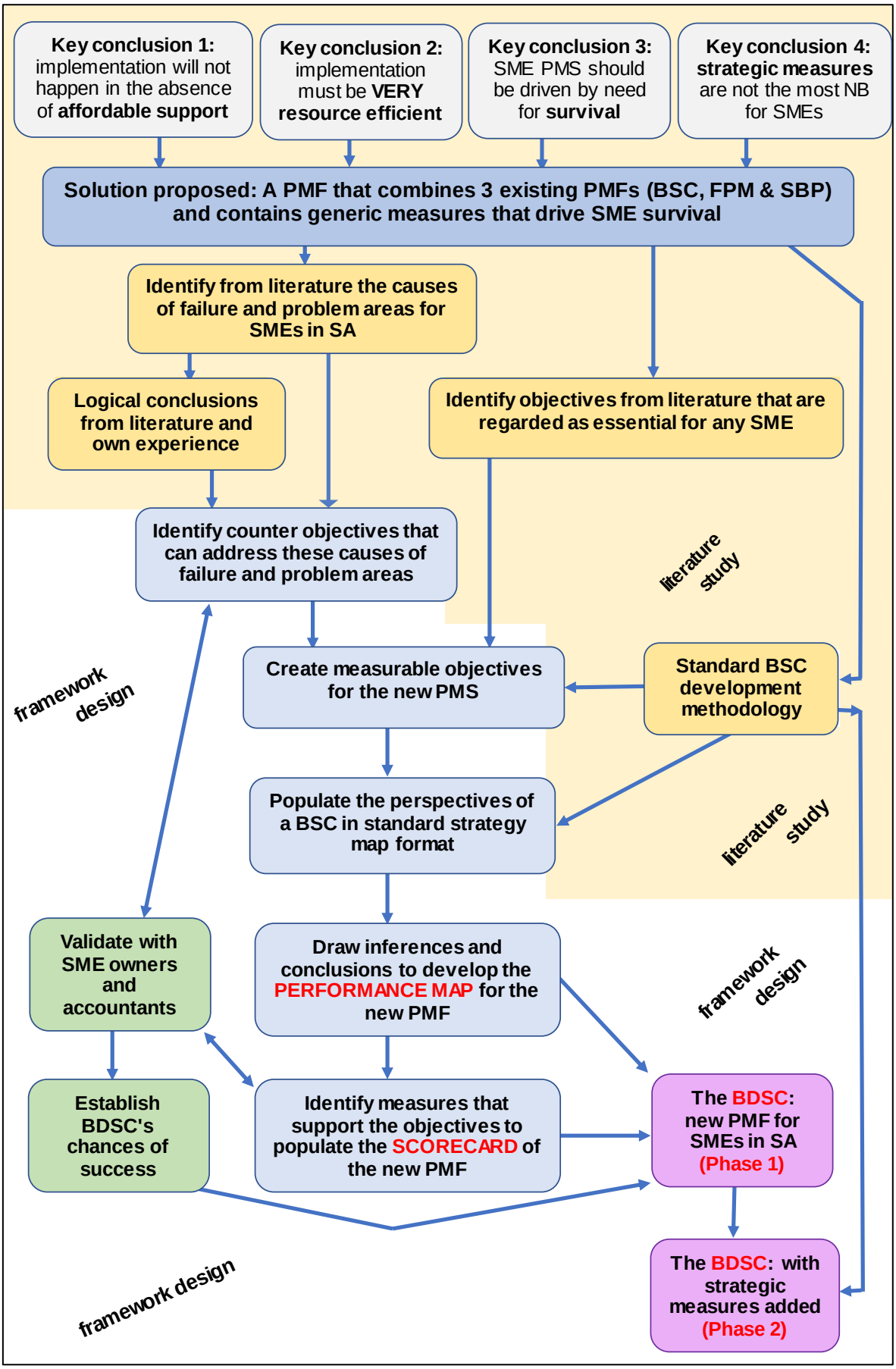


Figure 6.5: Logical flow of development for the new PMS

Source: Researcher's compilation.

6.5. DESIGNING PHASE ONE OF THE NEW FRAMEWORK

Phase 1 was developed along the conventional SOMIMAD steps (Chapter 3) for designing a BSC. Not all steps are required, or were not required in Phase 1 of this study, as indicated below:

Strategy: *Omitted* because it was not required in Phase 1 of the proposed framework.

Objectives: Objectives were identified that drive SME survival or are regarded as essential.

Mapping: Objectives were mapped in a format similar to the BSC strategy map.

Initiatives: Some possible initiatives were identified.

Measures: Typical measures were suggested that will support the objectives.

Alignment: *Omitted* for this study, and also most likely not required by the vast majority of SMEs.

Documentation: *Omitted* for the purposes of this study, although required for PMS implementation.

6.5.1. Counter-objectives to causes of failure and problems

Table 6.1 shows a list of reasons for failure and problems that SMEs encounter in the SA context, which was compiled from the literature study in Chapter 4. Typical corrective action that SMEs could take to counter these problems, are shown opposite each problem. It must be pointed out that these actions are typical – and not proposed to be a complete list of universal counter-measures that could be taken. The source of the list of counter-measures is from the literature and the researcher's own experience. The principle of the proposed solutions is to identify some generic/universal objectives and supporting measures that will drive survival of a SME in the SA context. Many of the counter-actions are, in the researcher's opinion, logical, common-sense steps that any SME will take. This opinion was confirmed by the validating survey (Chapter 7). Some of the counter-objectives may require further motivation and are discussed below.

Lack of access to financing can be countered by making the SME more "finance-able". Banks or any investor will be much more willing to provide financing if the balance sheet is healthy. Key metrics from the bank's view will be acceptable debt:equity and liquidity ratios of the balance sheet. Acceptable profitability and projected cash flow would be other requirements (Collis & Jarvis, 2002; Kirsten et al., 2015; OECD, 1997). Cash flow management, including forward projections, are not only key factors that a bank looks at but, more importantly, are critical for business survival. SMEs should therefore concentrate on the aspects that the bank review to evaluate the SME for financing purposes.

Poor profitability can start to be addressed by just regularly and (more important) timely determining what the actual profitability of the business is ("what gets measured, improves"). What is proposed is some leading measures of profitability – not the financial statements. Financial statements are lagging measures and can be difficult to interpret by SME owners with little financial education.

The owner/manager should know what the profitability of the business is on a daily or weekly basis – “how the business is doing”. The term “operational profitability” is probably the best description of what needs to be measured, and in line with the findings of Jarvis et al. (1999) (Section 4.5.3) about what mature SMEs measure. For example, suggested metrics to support this objective are daily month-to-date sales, key variable costs and breakeven sales level calculations. Deviations in these metrics will trigger initiatives to increase profitability. The key is that it must be a simple, easy leading indicator or driver of profitability – otherwise the SME will not have the resources to measure it. Garengo et al. (2005) noted the example of “control cost measures” that could predict profit. Watts & McNair-Connolly, (2012) mentioned value added cost which essencially boils down to operating margin

Further examples of measures to roughly predict future profitability are daily number of service calls received by a repairman (Jarvis et al., 1999) or man-hours and cement usage versus tons production and sales in a precast concrete plant (researcher).

The questions that therefore need to be answered on a daily/weekly basis to determine total operational profitability, include:

- Are we selling enough to operate above breakeven?
- Are our variable costs within budget?

Determining total operational profitability means concentrating on effective operations, including sales, value-adding processes.

Poor management, *shortage of management resources and worker skills*, *over dependence on owner*, and *uncontrolled growth* can all be addressed by putting standard systems and procedures in place and training personnel and supervisors accordingly. Several researchers have noted that lack of formalised systems and -management is one of the main barriers to organisational growth (Ates et al., 2013; Brem et al., 2008; Garengo et al., 2005).

As mentioned in Chapter 4, many SME consultants advise business owners to improve the systems and training in the SME – to systemise it (Gerber, 2016; Harnish, 2014; Hedley, 2009; Warrillow, 2010). This is in line with the observation that PMS can add to developing management practices in SMEs (Ates et al., 2013; Garengo & Sharma, 2014).

External factors that the SME has no control over, such as a recession or entry of strong new competition, can be faced much better with a “war chest” of good cash flow and access to financing as well as strategic planning. As was mentioned, a healthy balance sheet and good cash flow management are critical in this regard.

A hostile, uneducated, illiterate labour force can be addressed much better if there is mutual understanding of cultural differences and language.There are probably few things that will create more goodwill and mutual respect than if management and workers from all population groups can communicate in English/Afrikaans as well as the prevalent local indigenous African language. Nelson

Mandela is quoted as once saying: “if you speak to a man in a language he understands, it goes to his head. If you speak to him in his own language, it goes to his heart” (Sandwood, 2018).

Basic literacy and numeracy education will help *uneducated, illiterate workers* understand the importance of productivity, low cost, good quality, etc. This most basic literacy and numeracy education will also prepare workers for training in the business processes and systems and it will make them more “trainable”. The positive side effect of basic literacy education as suggested above, will be upliftment of the general well-being of the workforce. The ability of different culture groups to speak each other’s language will also reduce mistrust between management and workers. It is also very much in line with the SA government’s broad-based black economic empowerment (BBBEE) goals.

The list of typical generic counter-objectives therefore with duplications omitted and after editing, derived from this exercise, are listed below. These are some activities which SMEs in SA must excel in on a *continuous* basis in order to succeed:

- Do formal strategy planning and execution;
- Improve strength and liquidity of balance sheet;
- Know/improve profitability, key costs, breakeven;
- Do thorough cash flow planning and management;
- Train supervisors in basic supervisor skills;
- Train workers continuously in the SME’s updated business processes;
- Regularly update and document standard systems and procedures;
- Do basic literacy, numeracy and financial education (or increase worker literacy and numeracy levels);
- Do basic Eng/Afr and local African language education (or increase employees’ ability to communicate in an African language and English/Afrikaans).

6.5.2. Universal ‘must-have’ measures for SMEs

As discussed in Chapter 4, there are some specific objectives that some researchers have proposed any SME PMS should accommodate. Examples of such measures are:

- Customer satisfaction (Hudson, Smart & Bourne, 2001; Keegan et al., 1989; Watts & McNair-Connolly, 2012);
- Cash and liquidity (Collis & Jarvis, 2002; Mazzarol, 2010; Watts & McNair-Connolly, 2012; Welsh & White, 1981);
- Multi-skilled training, well trained workforce (Hudson, Smart & Bourne, 2001; Chimwani et al., 2013);
- Productivity/speed (Garengo et al., 2005; Hudson, Smart & Bourne, 2001; Keegan et al., 1989; Kennerly & Neely, 2002);

- Quality (Hudson, Smart & Bourne, 2001; Keegan et al., 1989; Kennerly & Neely, 2002; Watts & McNair-Connolly, 2012);
- Product/process cost (Garengo et al., 2005; Keegan et al., 1989; Kennerly & Neely, 2002).

Most of the above measures are however already accommodated within the survival counter-objectives. Productivity and product/process cost can be accommodated in the total operational profitability measures. Supervisor- and process training addresses the need for a well-trained workforce.

The only objectives that could be added therefore, that have not already been addressed within the "survival" measures, are:

- Improve customer satisfaction; and
- Improve product/service quality.

Table 6.1: Reasons for failure and problems facing SA SMEs with possible counter-objectives

Causes of failure and problems in SA SMEs	Counter-objectives within the control of SME owner that can assist towards rectifying the problem
1. Lack of strategic planning	do proper, regular strategic planning
2. Lack of access to finance	improve health & liquidity of balance sheet
	do thorough cash flow planning & management
3. Cash flow problems	do thorough cash flow planning & management
	improve business profitability
4. Lack of structure and formal systems	develop and improve standard systems & procedures
	training in standard systems & procedures
	supervisor training
5. Poor management in general	develop and improve standard systems & procedures
	training in standard systems & procedures
	supervisor training
6. Entrepeneurial, lack formal business training	do proper strategic planning
	do thorough cash flow planning & management
	know profitability, cost, breakeven
	develop and improve standard systems & procedures
	training in standard systems & procedures
	supervisor training
7. Shortage of management resources	develop and improve standard systems & procedures
	training in standard systems & procedures
	supervisor training

Table 6.1: Reasons for failure and problems facing SA SMEs with possible counter-objectives (continued)

Causes of failure and problems in SA SMEs	Counter-objectives within the control of SME owner that can assist towards rectifying the problem
8. Too dependent on owner/ manager	develop and improve standard systems & procedures
	training in standard systems & procedures
	supervisor training
9. Poor profitability	do proper strategic planning
	know profitability, cost, breakeven
10. Poor financial control & planning	know profitability, cost, breakeven
	develop and improve standard systems & procedures
	training in standard systems & procedures
11. Low investment in training personnel	develop and improve standard systems & procedures
	training in standard systems & procedures
	supervisor training
12. Uncontrolled growth	develop and improve standard systems & procedures
	training in standard systems & procedures
	supervisor training
	know profitability, cost, breakeven
	do thorough cash flow planning & management
13. External factors with no control	improve health & liquidity of balance sheet
	do proper strategic planning
	do thorough cash flow planning & management
14. Skills shortage	training in standard systems & procedures
15. Uneducated work force	basic literacy, numeracy, financial education
	indigenous- & Eng/Afr language training
16. Rigid labour laws	basic literacy, numeracy, financial education
	indigenous- & Eng/Afr language training
17. Hostile unions	basic literacy, numeracy, financial education
	indigenous- & Eng/Afr language training
18. Cultural and language differences	indigenous- & Eng/Afr language training

Source: Researcher's compilation.

6.5.3. Objectives of the new framework

The combined list of generic objectives that were derived from the aforegoing exercises, and which SA SMEs should focus on, are listed in Table 6.2. If one analyses the list, it is clear that many of the objectives can be classified as foundational “business development” objectives. They promote management development as many researchers note PMSs do (Ates et al., 2013; Garengo & Sharma,2014). These objectives address the management areas, amongst other, where SMEs traditionally fall short and exacerbate their ultimate failure. Other objectives in the list are either classified by the researcher as “strategic” or “basic literacy”. Table 6.2 also shows the classification of objectives by the researcher.

6.5.4. Naming the new framework: the BDSC and Performance Map

The researcher named the new framework the “Business Development Scorecard” or BDSC, because of the many management and business development objectives contained in the framework. The “cause-and-effect” map of the BDSC is named a “Performance Map” rather than a strategy map as in a BSC. The motivation was the attribute of the BDSC of containing not only strategic measures as in the strategy map, but also non-strategic objectives.

6.5.5. Mapping the objectives of the new framework (the BDSC)

In line with the BSC logic, the next step was to place the typical objectives in the appropriate BSC perspective and then link them through cause-and-effect relationships as in a standard BSC strategy map format. Comparatively, in a conventional BSC, at this stage, the objectives would have been identified that will support the strategic themes in the different perspectives.

Table 6.2 shows the perspective to which each objective has been allocated, and whether it is a unique objective or generic to all SMEs.The strategic objectives are omitted for now and are only addressed later in Phase 2.

It may seem strange that “do good cash flow management” and “improve total operational profitability” are in the process perspective and not financial perspective. These two objectives however refer to drivers in the (leading) process perspective of successful outcomes in the (lagging) financial perspective. For example:

> *Good cash flow management includes the debtor management and credit control processes (amongst other), which are essential processes that will drive future favourable liquidity ratios. Operating margins/profitability improvement entails focussing on key process productivity, variable cost control, etc. Together with management of the sales and marketing processes, weekly and even daily leading indicators of profit (as in financial statements) can be determined with sufficient accuracy.*

Table 6.2: Objectives for new framework allocated to BSC perspectives

Objective type	Objective description		Type	Perspective
1. Strategic	1.0	Various strategic objectives unique to a specific SME	unique	all
2. Basic workforce literacy	2.1	Basic literacy education in Eng/Afr and local indigenous African language	generic	learning
	2.2	Do basic numeracy & financial literacy training	generic	learning
3. Business development	3.1	Develop and improve standard systems and processes	generic	learning
	3.2	Training in standard systems and processes	generic	learning
	3.3	Do supervisor training and development	generic	learning
	3.4	Do thorough cash flow planning & management	generic	process
	3.5	Know/ improve operational profitability (key costs, breakeven)	generic	process
	3.6	Improve strength and liquidity of balance sheet	generic	financial
	3.7	Improve customer satisfaction	generic	customer
	3.8	Improve product/service quality	generic	process
	3.9	Improve business profitability	generic	financial

Source: Researcher's compilation.

Figure 6.6 shows the objectives linked in cause-and-effect map format. There are three distinguishing observations evident in the map. Firstly, the learning perspective has the most objectives – supporting the importance of building intangible assets (Kaplan & Norton, 2004).

Secondly, the spread of generic objectives shows a degree of balance already in Phase 1 of the BDSC.

Thirdly, the basic literacy group of objectives in the learning perspective act as enabler of the other objectives in the learning perspective.

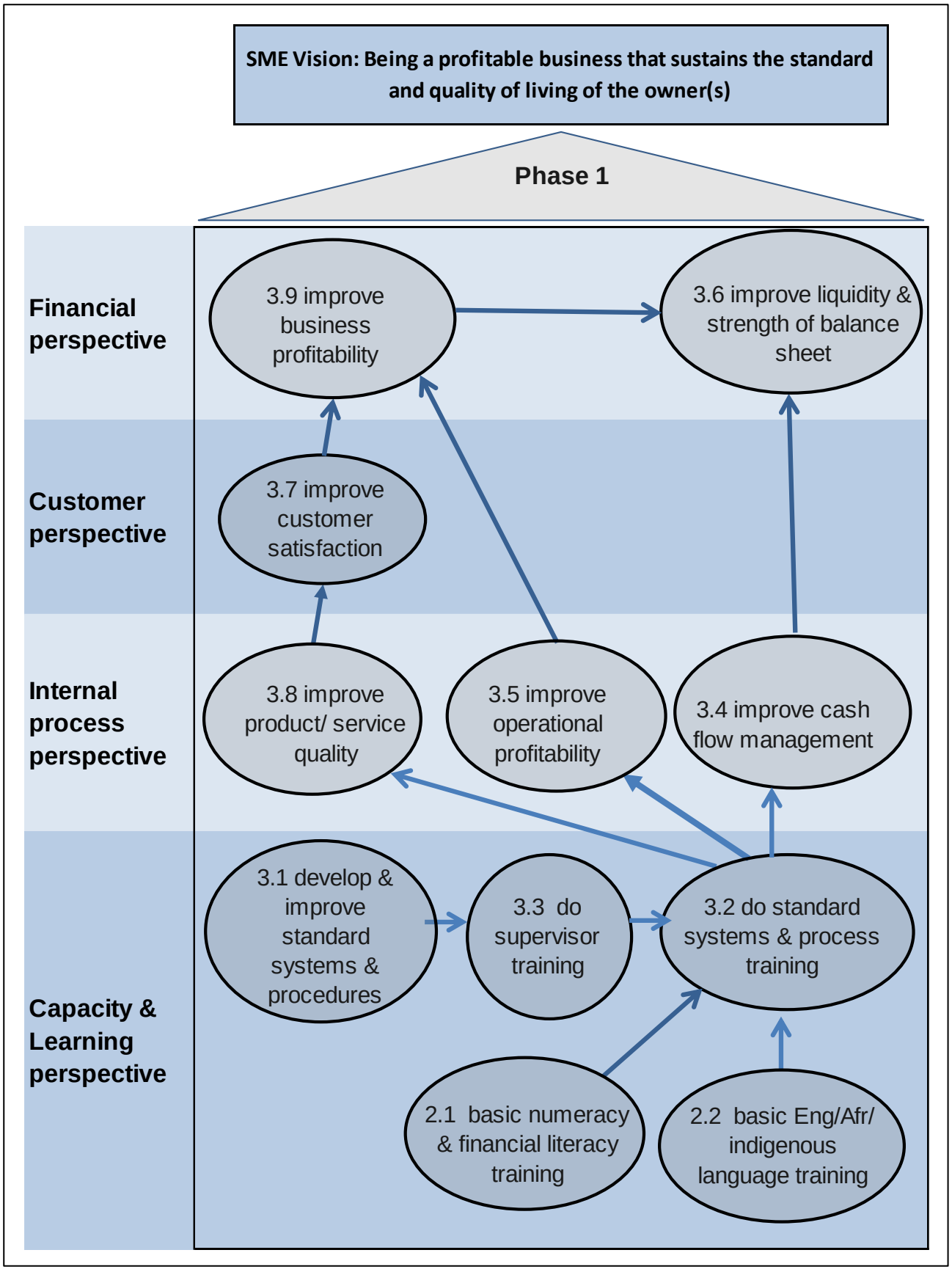


Figure 6.6: Mapping of Phase 1 objectives in BSC perspectives in causal relationships

Source: Researcher's compilation.

6.5.6. Adding the basic literacy perspective to the BSC

The researcher therefore proposes that there is merit in adding a fifth perspective to the BDSC, in addition to the standard four generic perspectives of financial, customer, process, and learning. This additional perspective is named “basic literacy” and houses all the “basic literacy” objectives. The basic literacy perspective is added to the bottom of the scorecard, because it acts as enabler of the objectives in the learning perspective, which in turn acts as enabler of the rest of the objectives in the other perspectives. The basic literacy perspective of the BDSC may be an optional perspective depending on the degree of labour intensity of the SME. This new perspective may therefore be more applicable to the manufacturing, construction and certain service sectors. Figure 6.7 illustrates the logical flow of the five perspectives of the BDSC, each acting as enabler of objectives in the higher perspectives.

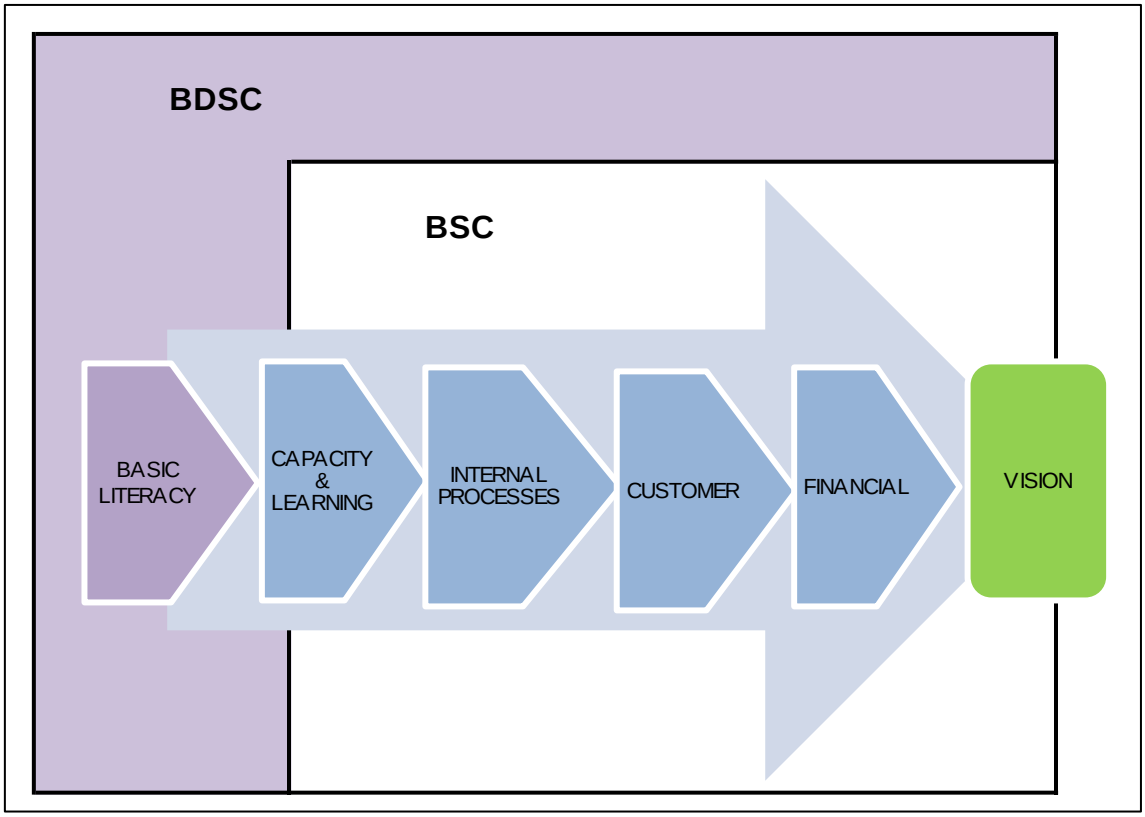


Figure 6.7: Adapted perspectives of the BDSC framework

Source: Researcher’s compilation.

Figure 6.8 below depicts the final version of the Performance Map, showing the addition of the Basic Literacy perspective, as well as the accommodation of the Strategic objectives when moving to Phase 2. Strategic objectives, naturally cannot be expressed as a single objective, and represent a sub-set of unique strategic objectives over all the BSC perspectives.

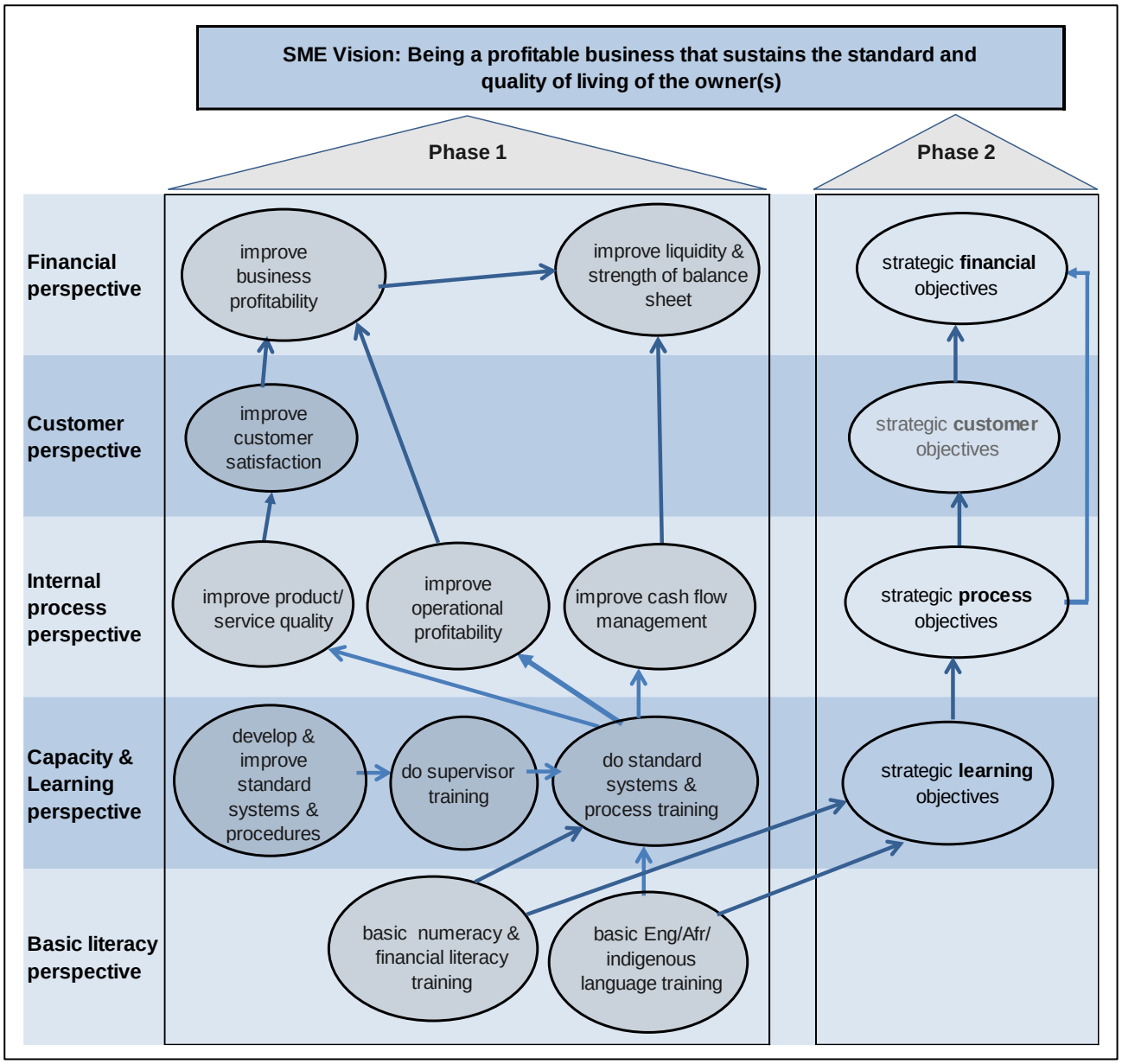


Figure 6.8: The BDSC Performance map

Source: Researcher's compilation.

6.6. THE SCORECARD: TYPICAL MEASURES THAT CAN SUPPORT THE BUSINESS BUILDING OBJECTIVES OF PHASE 1

A measure must be evidence of the extent to which an objective is being realised (Section 2.3.5). Table 6.3 shows suggested measures that support the Phase 1 objectives of the BDSC.

The researcher does not claim that these are the "best" measures to support each objective, but based on logical conclusion and own experience, these are fairly common measures that represent evidence of the degree to which their linked objectives are realised.

These measures were also used to validate the BDSC for ease of implementation (Section 7.9).

The researcher suggests that users of the BDSC can start off with this suggested scorecard, and gradually if needed, replace individual measures in the scorecard with measures that may be better evidence of objective realisation, in a specific SME's context.

Table 6.3: Suggested Scorecard measures to support Phase 1 objectives

Perspective	Objectives		Measures (evidence)		
			No	Cycle	Description
Financial	1	Improve business profitability	1	month	profit % and -value as per financial statements
			2	month	breakeven sales
	2	Improve health & liquidity of balance sheet	3	month	debt:equity ratio
			4	month	fire ratio
			5	month	nett current assets
Customer	3	Improve customer satisfaction	6	week	% overall customer satisfaction on a 5-point Likert scale
Process	4	Do thorough cash flow planning & -management	7	week	cash flow projection- next 6 weeks
			8	month	cash flow projection- next 12 months
			9	day	total cash and cash facilities available
			10	week	% debtors overdue
	5	Improve total operational profitability (as leading indicator of business profitability)	11	week	accummulated sales contribution vs.budget & breakeven
			12	week	monitor key variable cost items vs.standard
	6	Improve product/sevice quality	13	week	monitor % quality defects: products/services
Learning	7	Develop & improve standard systems & procedures	14	month	number of processes documented or revised
	8	Do supervisor training	15	6 month	% supervisors pass relevant training courses
	9	Do training in standard systems & procedures	16	6 month	% workers competent in relevant systems and procedures
Basic literacy	10	Do basic Eng/Afr/ Indigenous language literacy training	17	6 month	% workers that can speak Eng/Afr/ Indig.lang
	11	Basic numeracy, financial literacy education	18	6 month	% workers pass basic financial literacy test
			19	6 month	% workers pass basic numeracy test

Source: Researcher's compilation.

6.7. CHAPTER SUMMARY

This chapter proposed a new PMF for SMEs, the BDSC, that contains objectives that drive a universal SME vision of:

> *Being a profitable business that sustains the desired standard and quality of living of the owner(s).*

The BDSC is an adaption of the BSC, which:

- is implemented in two stages;
- contains universal/generic as well as strategic objectives and measures; and
- adds a fifth perspective to the BSC (basic literacy), providing for the SA business environment.

The framework has a partly prescriptive Performance Map (Figure 6.8) and suggested Scorecard (Table 6.3), making it very resource efficient for SMEs to implement Phase 1 of the PMS. The Performance Map depicts the objectives in causal relationships spread over the five perspectives of the BDSC. The Scorecard consists of suggested measures to support the generic objectives, which enable the SME to start its PMS process straight away and have immediate benefits from the process.

Phase 2 of the BDSC entails the adding of strategic objectives and measures using the circular methodology (Garengo & Biazzo, 2012) or standard BSC methodology.

The following chapter explains the validation process that was followed for the proposed BDSC.

CHAPTER 7:
DISCUSSION AND VALIDATION OF THE BDSC FRAMEWORK

The attributes of the BDSC are discussed in more detail and critically compared to PMS literature. Validation of the new framework was done through a survey. The results of the survey give an indication of the practical usability of the framework.

7.1. THE BSC VS. BDSC LOGIC

Figure 7.1 below concisely depicts the BDSC logic compared to that of the standard BSC.

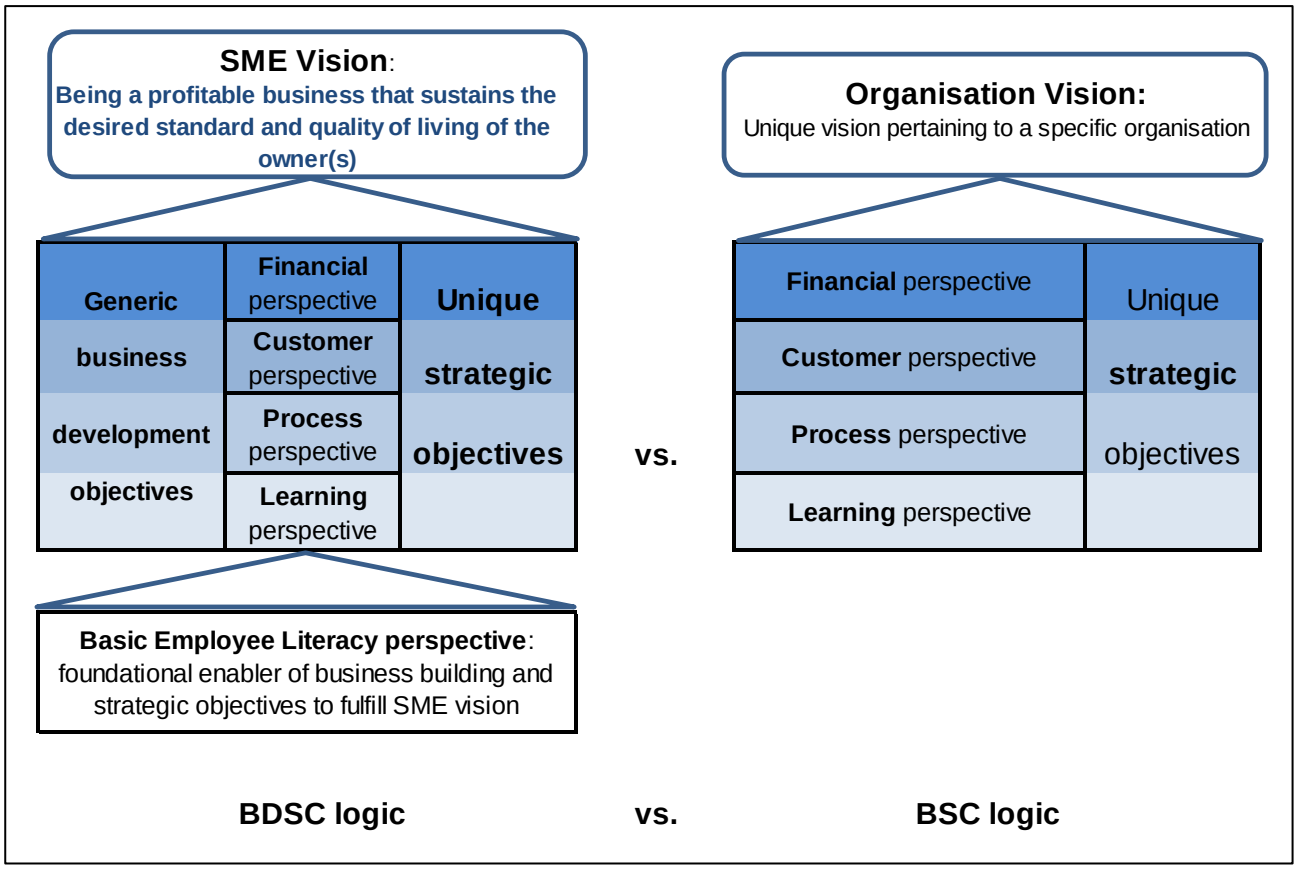


Figure 7.1: The BDSC vs. BSC logic

Source: Researcher's compilation.

- The BDSC specifically applies to SMEs. The BSC can be applied to any organisation.
- The BDSC supports a specific vision of success, i.e. "a profitable business that will support the owner's standard and quality of living", whereas the BSC can support any vision for any type of organisation.
- The BSC contains only strategic objectives, whereas the BDSC has strategic and generic business development objectives.

- The BDSC provides for the business environment in SA by adding the basic literacy perspective. This perspective may obviously be omitted if the BDSC is used internationally. The BSC has no specific provision for South African conditions.

7.2. THE BDSC PERFORMANCE MAP TELLS A STORY

The cause-and-effect linkages of business development objectives (Figure 6.6) tell the story of the performance map – how the success vision will be fulfilled in the business. Basic literacy objectives are the foundational enablers of the rest of the objectives in the BDSC. The basic literacy objectives prepare workers for the actual (more advanced) business process training, which facilitates more effective process and systems training in the learning perspective. The processes are continuously updated and improved. Workers and supervisors that are well trained, will result in more effective execution of all internal processes including the cash flow management process. This will also result in the owner being freed up to work *on* the business and not *in* the business – resulting in more time for strategic planning. Effective processes will result in lower cost, better quality and increased customer satisfaction, which will lead to higher sales. Ultimately, the lagging objectives in the financial perspective will show improvement: the balance sheet will be healthier and more liquid. A strong, healthy balance sheet with good cash flow will contribute to the owners having a business that supports their desired standard and quality of living.

The BDSC can be gradually grown into a fully-fledged balanced, strategic PMS as management's PMS skills develop and the size and complexity of the business demand it. Emphasis therefore will gradually move from Phase 1 to Phase 2 as the SME becomes well established and hopefully evolves into a big business. Focus will, in other words, move from the business building objectives to the strategic objectives.

7.3. THE BASIC LITERACY PERSPECTIVE

As has been shown in Section 4.2.1, the skills level of the pool of workers that SMEs have to choose from in SA, is extremely low. The basic literacy objectives in effect make illiterate workers more "trainable" for the higher-level business-specific process training.

Two essential basic literacy objectives have been identified and validated in this study as contributors to SME success:

- *Basic verbal and reading education* in the local indigenous African dialect plus the prevailing business language, which will be English or Afrikaans. The idea is that all workers and management must be able to communicate directly (not through a translator). This will make training much more effective and promote understanding of cultural differences. It also addresses the problem noted by (Khomba, 2011) that PMFs used in Africa must accommodate differences between African and Western cultures.Training could even be industry or business process-specific language training to focus on a narrow vocabulary range initially – which will result in faster pay-off to the SME.

- *Basic numeracy education* to be able to understand a pay slip, the performance management system in his/her work area, etc.

Businesses can obviously go about it in two different ways to try and achieve these objectives, i.e.:

- Employ only people with the required basic literacy, or
- Present basic literacy education and training in-house.

The first is not a viable option for SMEs as their pay structure does not allow them to compete against government and big business for the limited pool of skilled workers (Section 4.2.10). In the researcher's view, the second option will also be a challenge for most of the SME population due to lack of resources and especially the availability of trainers and training material in indigenous languages. To be practical and widely accepted, government intervention in the form of subsidised/affordable training assistance should be readily accessible to SMEs.

Although not validated in this research project, it is the researcher's view that several basic education areas exist that could be considered as candidates for inclusion under the basic literacy perspective, which could have a very positive effect on SME performance. Basic education that could uplift the general well-being of workers are an example. Specific examples are:

- *Basic health and nutritional education*: Unskilled workers suffer from a lack of basic nutritional knowledge, leading to health problems that could have been avoided.
- *Basis financial education*: They are being exploited through excessively high-cost credit agreements, due to lack of basic financial literacy and numeracy knowledge – leading to financial demise that could have been avoided.
- *Company values and strategy education*: Adding objectives of culture, values and strategy communication to the basic literacy perspective may also be something to consider, because it entails basic communication of the workforce to the company causes. It will obviously be an enabler of alignment of workers' actions towards business strategy. This is in part supported by Phil Jones (2011) who added "company values" as an additional perspective at the base of the BSC.
- Even *induction training* of new workers and *occupational safety training* could be considered – essential training that is typically not done in SMEs .

There could also be direct economic advantages for SMEs doing basic literacy education because of the alignment with the SA Government's BBBEE policy (DTI-RSA, 2014). SMEs doing basic literacy training will therefore directly increase their chances of winning government business. Basic literacy training will obviously benefit large companies too if the need is identified, and does not have to be limited to SMEs.

Examples exist in SA where organisations do “basic literacy type” education and training. The Automotive Industry Development Centre, Eastern Cape (AIDC-EC) (2019) has similar programmes to educate workers in the automotive industry. Subjects included are employee wellness, nutrition, communication, personal finance and budgeting.

Fanagalo (Wikipedia, 2019b) was developed in the SA mining industry many years ago as a simplified language consisting of basic Zulu (mostly), English and Afrikaans. It was developed as a solution for people of different languages to communicate better with each other in the workplace. It mainly helped English and Afrikaans speakers to communicate with African language speakers. Nowadays it is seen as derogatory and no longer used. The objective of Fanagalo back then, however, aligns with the basic literacy perspective of the BDSC.

7.4. INITIATIVES

Initiatives are the limited duration projects that will facilitate the execution of the PMS objectives (Section 2.3.15). The most obvious initiative that sprouts from the BDSC, is the creation or finding of training and evaluation material for basic literacy objectives. Identifying the leading profitability indicators could also be regarded as an initiative.

7.5. THE NUMBER OF OBJECTIVES AND SIMPLICITY OF THE BDSC

At first, it may seem that the BDSC will consist of far too many objectives for a PMS, because it has two sets of measures (strategic plus development) as well as an additional perspective (basic literacy). This would be defeating one of the main requirements of a PMS, i.e. that of focus and simplicity (Section 2.5.1.9). In addition, the apparent large number of objectives plus additional perspective, seem to make the BDSC unnecessary complex. Even more so in the case of SMEs, as this is exactly the opposite to what is considered as ideal for a PMS.

However, at a closer look, this is not the case: the BDSC is just as focussed and less complex than the standard BSC. As have been demonstrated in this thesis, excellence in the business development objectives of the BDSC will facilitate SMEs in achieving their vision of success. If one thinks about how the objectives, that will drive the universal vision in each perspective of the standard BSC for a particular SME, will be determined, it seems logical that most business development objectives will naturally be included in a typical SME BSC.

The objectives in a standard BSC are determined by addressing the following questions (OIQs) for each perspective:

- *Financial: Which financial outcomes do we need, to show that we are succeeding?* The two development objectives pertaining to liquidity and balance sheet strength are critical to realise the success vision.
- *Customer*: *How do customers see us?* A basic customer satisfaction survey will give a good indication of the customers’ perceptions.

- *Internal processes: Which processes must we do well to achieve the desired financial outcome and to satisfy customers?* Excellent quality is a basic requirement for satisfying customers. Productive, profitable operations and good cash flow management are basic, essential drivers of a healthy and liquid balance sheet.
- *Capacity & learning*: *What skills and capacities should our people have to perform the critical processes well?* Competent, trained management/supervision at all levels and employees who are trained to perform all processes well are basic prerequisites. It has been shown in this thesis that SMEs underperform in this area (Chapter 4). Again, the proposed learning development objectives seem to be objectives that would have been included in any case in the BSC of a SME.

The above reasoning shows that the BDSC should not have more objectives than a standard BSC for a particular SME, because they are objectives that would have been identified as supporting strategic objectives in any case. However, the addition of the basic literacy perspective, can potentially add two or three additional objectives.

In the researcher's view, the number of objectives in a top-level (tier 1) PMS for any business will more-or-less be the same, irrespective of its size. Smaller businesses will have only development and basic literacy objectives, which will gradually be replaced by strategic objectives as the business grows in size and complexity. Figure 7.2 illustrates this view.

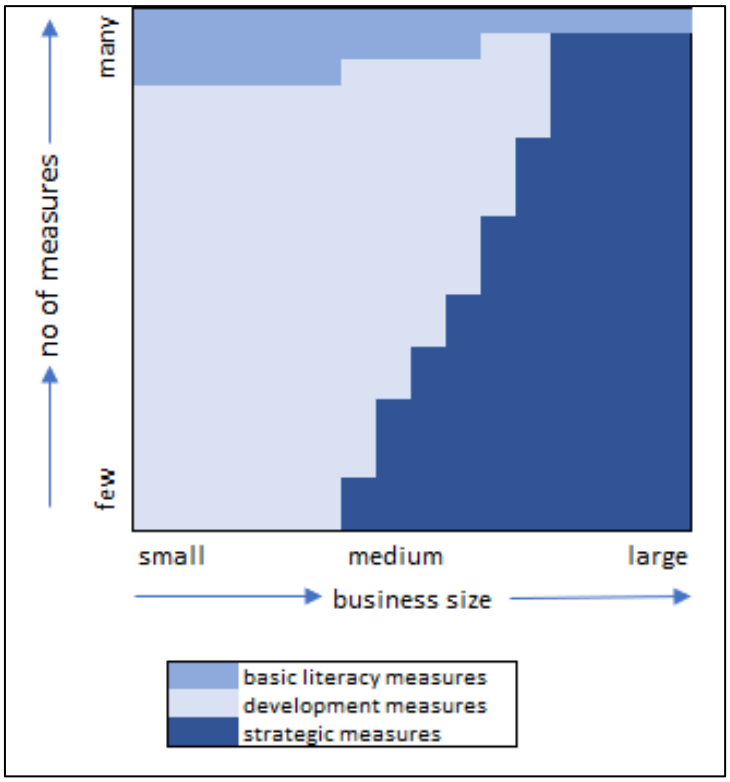


Figure 7.2: Type and number of objectives vs. business size of a PMS using the BDSC framework

Source: Researcher's compilation.

7.6. THE HIGH NUMBER OF LEARNING OBJECTIVES AND MEASURES

About 50 percent of the objectives in the BDSC are learning related, residing in either the learning or basic literacy perspectives. This high number is totally in sync with findings and trends in literature and practice, as discussed below. It correlates with findings (Section 2.3.6.2 that intangible assets represent the most value in a business and should be measured correspondingly.

The relative higher success rate of franchised SMEs is due mainly because of their much better standardised procedures and management systems and resources allocated to business process training (Gerber, 2016; Warrillow, 2010).

Several researchers have noted the positive effect that a PMS can have on management growth, development and efficiency. They noted that tacit knowledge and lack of formalisation of processes are characteristics of SMEs, which become much more difficult as the firm grows, increasing its risk of failure (Garengo et al., 2005; Garengo & Sharma, 2014; Jamil & Mohamed, 2011; Taticchi et al., 2008). The learning and basic literacy objectives of the BDSC address exactly this problem.

According to Gerber (2016), SME owners must consider their exit from the business right from the beginning, otherwise they may fall into the trap of just creating a job for themselves. According to many SME consultants, the way to achieve this is to systemise the business (Gerber, 2016; Warrillow, 2010). Ray Kroc, founder of McDonalds said: “The system runs the business, and the people run the system” (Gerber, 2016).

The development objectives will free more of the SME owner’s time to work *on* the business rather than *in* it (Gerber, 2016), enabling the owners to focus on building equity, rather than income. Through meeting the learning and basic literacy objectives, the owner will have time available for other personal activities that will address the quality of living part of the universal SME vision.

The above facts reinforce the important influence of the learning-related objectives – justifying their dominance in number.

7.7. STAGED IMPLEMENTATION OF THE BDSC

Garengo et al. (2005) noted that in SMEs, incremental changes are often preferred over radical changes. Hudson, Smart and Bourne (2001) also noted the importance of staged implementation and quick initial gains.

As shown in Chapter 6, the BDSC is designed to be implemented in two phases. However, it is the researcher’s view that even in Phase 1, staged implementation will be the norm. The BDSC is equipped for staged implementation, and to achieve quick positive results.

In the researcher's experience, the measures in Phase 1 of the BDSC will in practice most likely be implemented in four stages as shown in Table 7.1:

- Stage 1: Financial and cash flow measures (except actual management statements) should be available immediately.
- Stage 2: Financial statements, customer measures and the balance of the process-related measures should follow not far behind.
- Stage 3: The learning measures.
- Stage 4: The basic literacy measures – most likely much later as discussed in Section 7.4.

Table 7.1: Expected stages of Phase 1 of the BDSC implementation in practice

Measure (evidence)	Perspective	Suggested stages of implementation
breakeven sales	financial	1
debt:equity ratio	financial	
fire ratio	financial	
nett current assets	financial	
rolling 6-week cashflow projection	process	
rolling 12-month cashflow projection	process	
total cash and cash facilities available	process	
% debtors overdue	process	
profit % and -value as per financial statements	financial	2
overall customer satisfaction	customer	
accummulated sales vs budget &breakeven	process	
monitor key variable cost items vs standard	process	
quality control measures	process	
number of processes documented or revised pm	learning	3
% supervisors pass relevant training courses	learning	
% workers competent in relevant systems and procedures	learning	
% workers that can speak Eng/Afr/indigenous language	basic literacy	4
% workers pass basic financial literacy test	basic literacy	
% workers pass basic numeracy test	basic literacy	

Source: Researcher's compilation.

7.8. VALIDATION OF THE BDSC FRAMEWORK

Validation of the BDSC was done through a survey among 20 potential users of the framework. The composition of participants is shown in Addendum B: 8 accountants and 12 SME owners over different trade sectors. The detail of the survey questionnaire is shown in Addendum A.

The aim of the survey was to verify whether the key elements of the BDSC are indeed acceptable in practice. The level of agreement on a 5-point Likert scale was determined among the sample of potential users regarding the following elements:

- The universal SME vision;
- The objectives in Phase 1;
- The degree of difficulty of implementing the measures in Phase 1.

The results are shown in Tables 7.2, 7.3 and 7.4 below and can be summarised as follows:

- 100% of participants agreed/strongly agreed with the *SME vision of success* used (Table 7.2);
- 86% of participants agreed/strongly agreed with the *objectives used*, with the lowest score any objective obtained being 69% (Table 7.3) for basic financial literacy and numeracy training. The analysis of results per trade sector showed that the more labour intensive, unskilled worker sectors, such as manufacturing and construction, scored higher for this element than the other sectors. This is understandable and in line with the researcher's expectation.
- 90% of participants agreed/strongly agreed with the measures obtained regarding *ease of implementation*, with the lowest score any measure obtained being 59% (Table 7.4) for measuring quality of products/services. This is a bit of an outlier compared to the other results; However, upon analysing the results of participants per trade sector, it appeared that the accountant group scored very low and skewed the sample somewhat because of their weight in the sample. A propable explanation is that the accountants thought they did not know enough about their clients' processes.

The reaction of participants was mostly very positive. A notable reaction from one of the accountants was:

> *…this is exactly what we need in our practice to sell more value-added services to our clients.*

In general participants were keen to have a follow-up meeting to see the end result of the research. Further conclusions that could be drawn from the results of the survey, are:

- The accountant in combination with his/her client, the SME owner, will very likely be able to implement all the Phase 1 measures with ease.
- The basic literacy group of measures (perspective) will be more applicable to some trade sectors (for example, manufacturing and construction) than others.

Table 7.2: Validation of the universal SME success vision

To what extent would you agree that the undermentioned goal matches a SME owner's vision of success for the owner's business?:	**% participants that either agree or strongly agree**
SME success vision: To have a profitable business that sustains the desired standard and quality of living of the owner(s).	**100%**
level of agreement: 1=strongly disagree; 2=disagree; 3=undecided; 4=agree; 5=strongly agree	

Table 7.3: Validation of objectives included in the BDSC

To what extent do you agree that the under mentioned objectives are within SME owners' control and will address the causes of failure and problems faced by SMEs in SA	**% participants that either agree or strongly agree**
level of agreement: 1=strongly disagree; 2=disagree; 3=undecided; 4=agree; 5=strongly agree	**86%**
do proper strategic planning	88%
improve business profitability	94%
improve health & liquidity of balance sheet	88%
do thorough cash flow planning & management	92%
know profitability,key cost, breakeven	94%
develop and improve standard systems& procedures	88%
training in standard systems & procedures	84%
supervisor training	85%
Indigenous language and Eng/Afr language training	78%
basic numeracy, financial literacy education	**69%**

The results of the validation confirm that:

- The objectives and measures of the BDSC will drive survival of a SME in SA;
- The typical measures on the scorecard of the BDSC that supports its objectives are easy and very resource efficient to implement.

In the light of the results of this validation, it can be claimed that the objective of this research was reached:

> *The proposed BDSC framework is indeed a PMF that can be successfully applied in South African SMEs and should be widely acceptable and used.*

Table 7.4: Validation of the ease and resource efficiency of BDSC implementation

To what extent do you agree that a SME owner will be able to calculate and implement the measures listed below in their businesses with only the external assistance of an accountant – if assistance is required?		**% participants that either agree or strongly agree**
level of agreement: 1=strongly disagree; 2=disagree; 3=undecided; 4=agree; 5=strongly agree		**89%**
measurement	**frequency**	**percentage**
1. profit % and value as per management accounts	monthly	100%
2. breakeven sales	monthly	100%
3. debt:equity ratio	monthly	94%
4. fire ratio	monthly	88%
5. net current assets	monthly	100%
6. total cash - & cash facilities available	daily	94%
7. rolling 6-week cashflow projection	weekly	94%
8. rolling 12-month cashflow projection	monthly	82%
9. debtors overdue	weekly	94%
10. accummulated sales vs budget/breakeven sales	daily & monthly	94%
11. monitor key variable cost items vs standard	daily & monthly	94%
12. monitor % quality defects: products/services	daily/ weekly	59%
13. overall custumer satisfaction level	monthly	82%
14. number of business processes documented/revised pm	monthly	82%
15. % workers that can speak Eng/Afr + Xhosa	2x per year	94%
16. % workers pass basic FINANCIAL LITERACY test	2x per year	94%
17. % workers pass basic NUMERACY test	2x per year	88%
18. % supervisors pass relevant training courses	2x per year	88%
19. % workers competent in relevant systems and procedures	2x per year	94%

7.9. CASE STUDY: APPLICATION OF THE BDSC

To use the BDSC in practice, Phase 1 can be used just as it stands as the suggested scorecard measures will mostly apply. To determine key variable and control cost items will generally require some analysis.

To add strategic measures, the researcher has suggested (Chapter 6) that either the circular method (Garengo & Biazzo, 2012) be used, or alternatively, that the standard OIQs of the BSC (Niven, 2014) be asked.

The researcher did a case study in “XYZ Precast” (not real name) with the objective to determine the degree of difficulty to add strategic objectives to the performance map. The researcher is a shareholder in XYZ Precast, but not involved in management.

A half-day session was held with the senior management team under the leadership of the researcher. After the logic of the BSC had been explained, it was decided to ask ourselves the OIQs of the BSC to unveil our existing strategy. The process was easier than the researcher expected, as the current strategy (reasons why customers buy from us) was determined within a morning session as the following:

- Competitive pricing;
- High visibility; and
- Quick delivery/product availability.

The team then proceeded to ask the OIQs of the BSC for each perspective to identify strategic objectives, while continuously bearing in mind what our strategy was.

(a). Customer perspective: How do we want the customer to view us? The team found it quite easy and logical to conclude that the customer objectives would therefore be:

- Maintain competitive pricing;
- Have short delivery lead times; and
- Be easy to find.

(b). Process perspective: The only additional processes identified that would enable the customer objectives, were:

- Maintain critical stock levels; and
- Be on the first page of a web search.

(c). Capacity & learning and basic literacy perspectives: The team did not think that any additional skills or training objectives were required immediately.

(d). Financial perspective: The team also concluded that the existing financial objectives were sufficient to reflect the financial goals.

These objectives were added to the Phase 1 performance map to complete the final performance map for XYZ Precast as shown in Figure 7.3.

This exercise demonstrated that the BDSC makes it relatively simple for a SME to start a PMS process. The management of XYZ could have more sessions and analyse their strategy in much more detail in future, but this exercise gave them a PMS that reflects their strategic intent in a basic way. Determining the performance map using the BDSC was a resource-efficient process that should have quick initial returns.

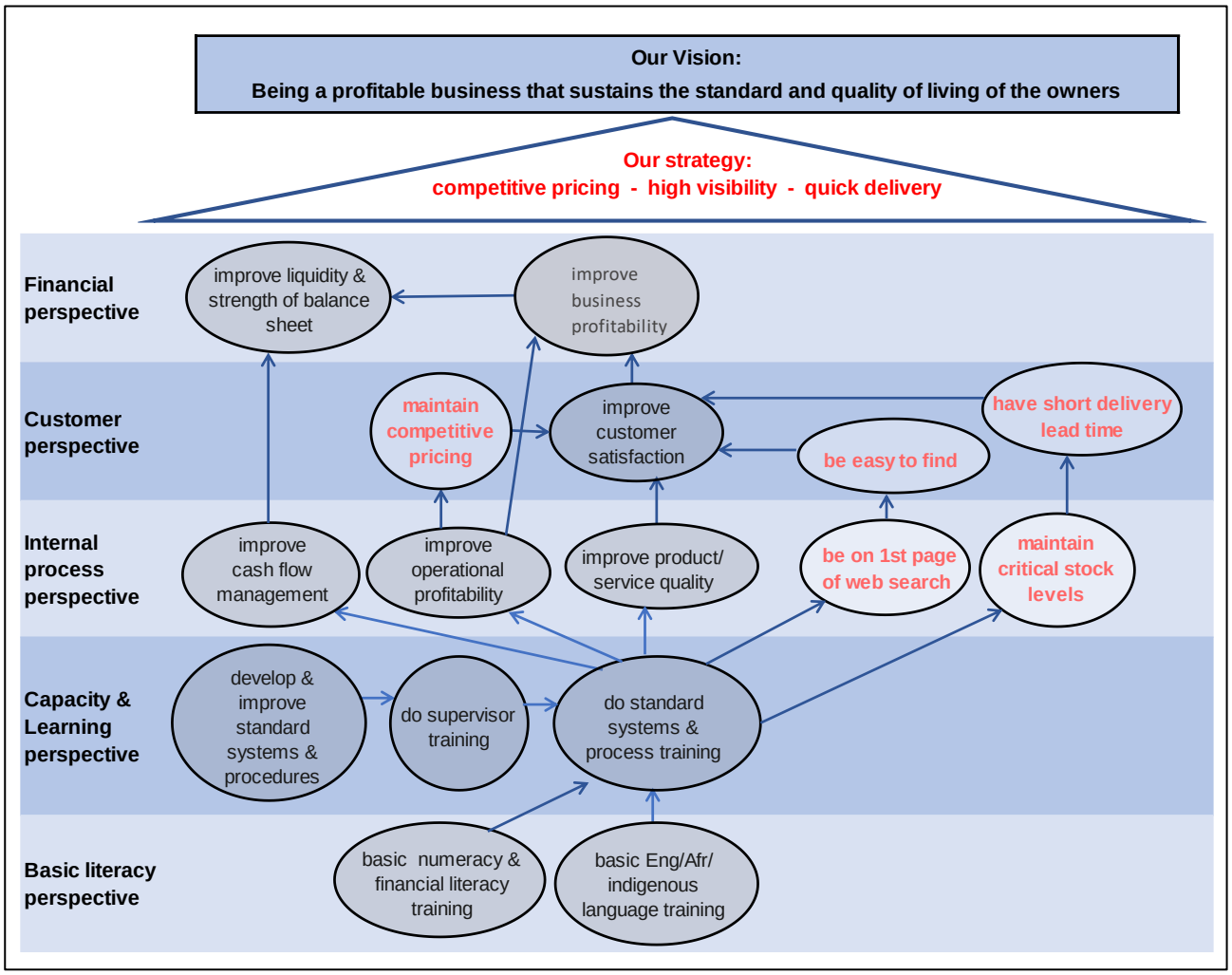


Figure 7.3: Performance map for XYZ Precast company with stratetic objectives

Source: Researcher's compilation.

7.10. CHAPTER CONCLUSION

In this chapter attributes of the proposed BDSC was further discussed and explained. It was shown that the logic of the BDSC resonates with PMS use in literature and practice. Finally, the BDSC was validated convincingly as a PMF that can be successfully applied in South African SMEs and should be widely acceptable.

CHAPTER 8:
CONCLUSION, CONTRIBUTION AND FUTURE RESEARCH

8.1. CONCLUSION OF THIS RESEARCH

SMEs play an important part in the SA economy and is seen as an important vehicle of economic growth and job creation. However, SA SMEs have one of the highest failure rates worldwide. Businesses with modern performance measurement systems (PMS) are known to perform better than their peers – and have a higher success rate.

Consequently, there is a real need for more SMEs in SA to use contemporary performance measurement systems that will drive a higher SME success rate and therefore higher employment. However, obtaining the necessary information to develop a PMS is very difficult if you are not a professional in the field, because of the diversity and complexity of the field. To bridge this problem, a workable PMS design and implementation framework for SMEs in SA, can go a long way. However, currently there is no such performance measurement framework (PMF) available, to the best of the researcher's knowledge.

Out of this need, the main objective of this research was formulated: to develop a practical PMF for SMEs in a SA context. The key word in this objective is 'practical' – meaning that the framework will be applied and used in practice and not only be of academic value. A secondary objective that preceded the main objective, was identifying the requirements for such a framework.

The research methodology consisted of a literature study of (i) business PMS principles, (ii) existing PMS frameworks, (iii) SME characteristics and (iv) the SA business environment perspective. The process of implementing a PMS with the Balanced Scorecard framework (BSC) as example was studied in some detail to equip the researcher for the development of the new framework and demonstrate the degree of complexity and resource intensity of this process. The final part of the research methodology consisted of a validation of the new framework through semi-structured interviews with 20 potential users. One case study where the framework was applied in a SME is also shown.

From the literature study and logical conclusion, the requirements of a PMF for SMEs in a SA context were identified, and thereby achieving the secondary objective of this research. Among 11 overall system requirements identified, three can be seen as key differentiating requirements: very resource-efficient implementation, the availability of affordable support, and the PMF must drive survival of the SME. Also, among four specific objectives that were identified as essential to include in a PMF for SMEs, one can be seen as a key differentiator in a SA context: workforce training.

Some of the key findings from the literature study that shaped the design of the new framework are that (i) the inclusion of strategic objectives adds significantly to the complexity and resource intensity of a PMS, and (ii) that strategic objectives in a PMS only start having a significant impact on business

performance when the workforce of a business has reached a size of approximately 50 employees. As more than 90 percent of SA SMEs fall in the size category of having fewer than 50 employees, the vast majority of the SME population would not require strategic objectives in a PMS.

The new PMF was developed by using elements of three different existing frameworks by Kaplan and Norton (1996), Watts and McNair-Connoly (2012), and Pekkola et al. (2016) as input to develop the Business Development Scorecard (BDSC). The BDSC is essentially an adaption of the Balanced Scorecard (BSC). The logic of the BDSC is that it consists of two parts which could be implemented in two phases. Phase 1 contains only generic objectives and measures that drive survival of the SME. The generic objectives of the BDSC was developed through generating typical counter-objectives to causes of failure and problems facing SMEs in SA and transforming these into measurable objectives. These Phase 1 objectives consist mainly of liquidity, management and skills development objectives – objectives that could also be described as of a 'business development' nature. This business development nature explains the naming of the new framework.

During the new framework's development process, it became clear that there is merit in a further adaption of the BSC for SA conditions. A fifth perspective, Basic Literacy, was included together with the existing four perspectives of the BSC. The basic literacy perspective houses basic Afr/Eng/indigenous language literacy, numeracy and financial education. It caters to a certain extent for the differences in Western and African cultures, multiple languages, and facilitates the "trainability" of unskilled workers.

Phase 2 entails the addition of strategic objectives and measures on a contingent basis – when business size and/or resources warrants it. Phase 2 is implemented according to standard BSC design principles, or using the circular methodology of Garengo et al.(2012).

A suggested list of generic scorecard measures that support the Phase 1 objectives is included in Phase 1. Users can start off with these measures and replace them with more applicable measures if and when required.

An important attribute of the BDSC is that it only requires the assistance (if needed) of the average accountant to implement Phase 1, making it very easy and resource efficient.

The new framework was convincingly validated through a survey of 20 potential users. Survey participants had to confirm their level of agreement on a 5-point Likert scale with three critical elements of the BDSC:

- The universal vision of success of a SME: business survival/endurance;
- The generic objectives included in the BDSC that support the fulfilment of the vision of success;
- The ease and resource efficiency of implementation of the BDSC.

Finally, one application of the BDSC was done in a SME.

8.2. LIMITATIONS OF THIS RESEARCH

The actions proposed for SMEs to counter failure, from which the objectives of the new framework have been developed, cannot be regarded as complete and comprehensive. Although it has been proven that these objectives will indeed counter the risk of SME failure, no attempt was made to prove that it is a complete list of possible counter-objectives. Therefore, other or more suitable objectives may exist that could be added to or included in the BDSC.

The same limitation applies to the measures proposed in the framework. It cannot be claimed that these measures represent the best evidence of the degree that their corresponding objectives have been met. The measures are included based on the researcher's own experience as SME owner.

8.3. CONTRIBUTION OF THIS RESEARCH

The outcome of this research is useful in the researcher's view, in that it should contribute to SME business success and therefore employment growth in SA.

- The *practical requirements for a SME PMS framework* were defined very specifically – both in general and for a SA context in particular – the researcher is not aware of any similar work.
- *A unique conceptual PMS framework* for SMEs (the BDSC) in SA was developed, which could also be applied in other countries.
- Although the BDSC might not be the optimal PMS, it is a *practical, 'ready-to-use' PMS framework for SMEs* in general that should be widely accepted among SMEs and accountants and definitely contribute to a higher success rate for SMEs in SA.

8.4. FURTHER RESEARCH AND DEVELOPMENT OF THE BDSC

A number of fruitful future areas of research were highlighted – such as:

(a). *The Basic Literacy perspective*: what to include, development of tools and education/training material to enhance success of basic literacy objectives. Many initiatives can follow from this research:

- Development of basic literacy, numeracy, financial course and training material – as well as evaluation tests for use in industry.
- Basic indigenous language, industry-specific, training courses.
- The availability of a government-lead and -subsidised "mass" SME training initiative.

(b). Researching methods to use the BSC for a simple mapping procedure of existing SME strategy. This would assist deployment of Phase 2 in the BDSC.

(c). Further research to identify the 'best' objectives and measures that should populate the business development phase of the BDSC.

(d). Research into the practicality and viability of a government/DTI-subsidised scheme to assist SMEs on a large scale to implement PMSs. The objective would be to get SMEs to use proper PMSs as the norm – not the exception. The end objective is job creation and preservation.

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ADDENDUM A:

SURVEY QUESTIONS

Survey questionnaire (part A)	**participant identity code**	

The participant is required to express his/her level of agreement on a 5-point scale with certain counter objectives proposed as a method (not necessaraly the only/best method) towards rectifying causes of failure and problematic factors in SA SMEs. The counter objectives should be within a SME owner's control.

CAUSES OF FAILURE and PROBLEMS IN SA SMEs	**COUNTER-OBJECTIVES within SME owners' control that can assist towards rectifying the problem**	**Agreement level** **1 strongly disagree** **2 disagree** **3 undecided** **4 agree** **5 strongly agree**
1. lack of strategic planning	do proper, regular strategic planning	
2. lack of access to finance	improve health & liquidity of balance sheet	
	do thorough cash flow planning & management	
3. cash flow problems	do thorough cash flow planning & management	
	improve business profitability	
4. lack of structure and formal systems	develop and improve std systems & procedures	
	training in std systems & procedures	
	supervisor training	
5. poor management in general	develop and improve std systems & procedures	
	training in std systems & procedures	
	supervisor training	
6. entrepeneurial, lack formal business training	do proper strategic planning	
	do thorough cash flow planning & management	
	know profitability, cost, breakeven	
	develop and improve std systems & procedures	
	training in std systems & procedures	
	supervisor training	
7. shortage of management resources	develop and improve std systems & procedures	
	training in std systems & procedures	
	supervisor training	

CAUSES OF FAILURE and PROBLEMS IN SA SMEs	COUNTER OBJECTIVES within SME owners' control that can assist towards rectifying the problem	Agreement level 1 strongly disagree 2 disagree 3 undecided 4 agree 5 strongly agree
8. too dependent on owner/manager	develop and improve std systems& procedures	
	training in std systems&procedures	
	supervisor training	
9. poor profitability	do proper strategic planning	
	know profitability, cost, breakeven	
10. poor financial control & planning	know profitability, cost, breakeven	
	develop and improve std systems & procedures	
	training in std systems & procedures	
11. low investment in training personnel	develop and improve std systems& procedures	
	training in std systems&procedures	
	supervisor training	
12. uncontrolled growth	develop and improve std systems& procedures	
	training in std systems&procedures	
	supervisor training	
	know profitability, cost, breakeven	
	do thorough cash flowplanning& management	
13. external factors with no control	improve health & liquidity of balance sheet	
	do proper strategic planning	
	do thorough cash flow planning & management	
14. skills shortage	training in std systems & procedures	
15. uneducated work force	basic literacy, numeracy, financial education	
	Indigenous language & Eng/Afr language training	
16. rigid labour laws	basic literacy, numeracy, financial education	
	Indigenous language & Eng/Afr language training	
17. hostile unions	basic literacy, numeracy, financial education	
	Indigenous language & Eng/Afr language training	
18. cultural and language differences	Indigenous language & Eng/Afr language training	

Researcher's signature:_____ **date:**_____

Survey questionnaire (part B)

participant identity code	

To what extent would you agree that the undermentioned goal matches a SME owner's vision of success for the owner's business?:	**Agreement level** **1 strongly disagree** **2 disagree** **3 undecided** **4 agree** **5 strongly agree**
"To have a profitable business that sustains the desired standard and quality of living of the owner(s)."	

To what extent do you agree that a SME owner will be able to calculate and implement the measures listed below in their businesses with only the external assistance of an accountant - if required?		**Agreement level** **1 strongly disagree** **2 disagree** **3 undecided** **4 agree** **5 strongly agree**
measurement	**frequency**	
1. profit % and value as per management accounts	monthly	
2. breakeven sales	monthly	
3. debt:equity ratio	monthly	
4. fire ratio	monthly	
5. net current assets	monthly	
6. total cash - & cash facilities available	daily	
7. rolling 6 week cashflow projection	weekly	
8. rolling 12 month cashflow projection	monthly	
9. % debtors overdue	weekly	
10. accummulated sales vs budget/breakeven sales	daily & monthly	
11. monitor key variable cost items vs standard	daily & monthly	
12. monitor % quality defects: products/services	daily/weekly	
13. overall custumer satisfaction level	monthly	
14. number of business processes documented/revised pm	monthly	
15. % workers that can speak Eng/Afr + Xhosa	2/ year	
16. % workers pass basic LITERACY test	2/ year	
17. % workers pass basic NUMERACY test	2/ year	
18. % supervisors pass relevant training courses	2/ year	
19. % workers competent in relevant systems and procedures	2/ year	

IF PARTICIPANT IS A SME OWNER, PLEASE COMPLETE THIS SECTION	
No of employees	
Mark industry sector that SME belongs to (✕)	
Community services, personal sevices, repairs	
Construction	
Financial and business services	
Manufacturing	
Trade, accommodation, catering	

Researcher's signature:_____ **date:**_____

ADDENDUM B:

SURVEY PARTICIPANTS

Table B.1: Representation of survey participants per trade sector

Trade sector	Number of participants
Community services, personal sevices, repairs	1
Construction	4
Financial and business services (all accountants)	8
Manufacturing	3
Trade, accommodation, catering	4
Total	**20**