BENCHMARKING SUSTAINABLE HIGH PERFORMANCE COMPANIES

Johan Hough*

Abstract

This article examines various approaches to benchmarking and measuring sustainable performance in order to identify long-term high performance companies in South Africa. We set guidelines and select the criteria for benchmarking high performance.

This benchmarking approach (based on the accessibility and reliability of standardized financial data) addresses the critical issues in the measurement of sustainable performance: benchmarking approaches, measuring strategic performance, finding the right guidelines for peer performance benchmarks, calibrating sustainability and long-term performance, and comparing individual high performers with the established benchmark.

This study sheds light on the practical guidelines for and the benefit of benchmarking high performance. Forty-four peer performance benchmarks and clusters based on 166 Johannesburg Securities Exchange (JSE) listed companies were established. Furthermore, fourteen high and superior performers were identified on the basis of this benchmark process.

Keywords: Sustainable High Performance, Performance Benchmark, Performance Clusters, Superior Performing Companies

*Department of Business Management, University of Stellenbosch, Stellenbosch, South Africa Tel: +27-218082214 Email: jhough@sun.ac.za

1 Introduction

It is the responsibility of senior management and leadership to manage tangible and intangible resources in such a way that sustainable long-term performance is achieved that (ultimately) ensures superior monetary returns for the shareholders and stakeholders. However, many studies have noted that few companies manage to achieve such long-term sustainable performance (Peters, & Waterman, 1982, Bird, Buchanan & Rogers, 2004 and Finkelstein, Harvey & Lawton (2007).

This article argues that the difficulties managers face in sustaining long-term high performance arise not just from changing, volatile and external competitive environments, but also from internal challenges in defining the concept of "high performance".

The article proposes a benchmarking and selection process, then setting peer performance benchmarks and clusters based on 166 Johannesburg Securities Exchange (JSE) listed companies over 10 years. The last part of the article identifies 14 high performers and compares superior performers with the peer benchmark and suggests future research topics.

2 Defining high performance

Several attempts have been made to define business success using a variety of criteria (Kirby, 2005). It has been common for researchers to polling international business executives and then come up with a list of high-profile global companies (Breene & Nunes, 2006).

Accenture's Centre for However, High Performance Consulting in the USA focus most of its research and consulting on high performance and performance anatomy of high performance (Breene & Thomas, 2004). Accenture defines high performance "the enduring or sustained outas follows: performance of peers, across business cycles and economic cycles, often across generations of leadership, and measures by widely accepted financial metrics." Breene & Nunes, 2006:11). Previously, Breene & Thomas (2004:1) argued that "highbusinesses actively manage performance the interaction between leadership and strategy, people development, IT enablement, performance measurement and innovation in a way that produces outstanding and sustainable results".

Finkelstein, Harvey & Lawton (2007:5) also focus on the importance of sustainability when they emphasize "consistent returns that are well above the industry average, as measures in particular by operating revenues and pre-tax profits". Jenkins,



Pasternak, & West (2009:2) in their study about business lessons from Formula 1 motor racing and the impact on business performance focus on "sustaining organizational performance in dynamic and competitive environments".

When a firm sustains profits that exceed the average for its industry, the firm is said to possess a competitive advantage over its rivals. The goal of much of business strategy is to achieve a sustainable competitive advantage (Hough, Thompson, Strickland, & Gamble 2011, Harvard Business School 2010).

The above statements and definitions are all valid within their own context and within the way the performance criteria or financial matrices were applied and in the way superior competitive advantage and/or high performance is defined. In this article high performance is defined as "The sustained outperformance of <u>peers</u> across industries, business and economic cycles, as measured by accepted standardized financial metrics".

The next section focuses on various approaches to benchmarking and measuring performance.

3 Approaches to benchmarking performance

Various researchers and authors have studied and used different approaches to select and benchmark performance in the following industries and business sectors:

- For the mutual fund industry, Hartzell, Mühlhofer & Titman (2010) developed single and multipleindex financial benchmarks to evaluate growth.
- Levine, Drucker, and Rosenthal (2010) identified high-yield bond benchmarks as the major factor considered when evaluating the financial performance of high-yield bond managers.
- Daniel, Sornette, & Woehrmann (2010) employed look-ahead benchmarks and random investment strategies as options to benchmark bias in portfolio performance.
- De Witte, & Marques (2010) used bootstrapping algorithms to design and benchmark non-financial performance incentive schemes in the water sectors of different countries.
- Pink, Holmes, Slifkin, & Thompson, (2009) established and applied benchmarks for five financial indicators included in critical access hospitals by means of an online survey of Chief Executive Officers and Chief Financial Officers.
- Söderberg (2009) proposed a framework for benchmarking based on a combination of financial production and cost characteristics and non-financial citizens' subjective perceptions performance benchmarks in public transportation in Sweden; and
- Lu, & Hung (2008) benchmarked the operating efficiency of 24 global telecommunication firms by analysing the relative attractiveness and

progress of these operators on a specific financial and non-financial performance level against operators exhibiting poorer and/or better performance.

Strategic Performance Measurement(SPM) is another but similar approach to benchmark performance. SPM supports the focus on superior performance by advocating performance metrics and defining leading indicators of performance, designing and re-engineering core management processes to incorporate new performance metrics and subsequent realigning the measurement and reporting infrastructure(McGee 1992). SPM can also help organisations define and achieve strategic objectives, align behaviours and attitudes and, ultimately, have a positive impact on organisational performance (Micheli & Manzoni, 2010). The same authors cite the following studies which have found SPM generally productive and helpful in benchmarking and improving organisational performance:

- Formulation, implementation and review of organisational strategy (Ahn 2001).
- Communication of results achieved to stakeholders, thus strengthening corporate brand and reputation (Atkinson, Waterhouse & Wells 1997); and
- Motivation of employees at all levels, promotion of a performance improvement culture, and fostering of organisational learning (Roos & Roos 1997).

The above approaches confirm that performance can be benchmarked for different reasons in different industries in different contexts and in different environments. These approaches vary in the application of financial and non-financial criteria when selecting benchmarks. However, all of the above performance benchmarks include financial performance criteria as part of their base benchmark.

4 Financial performance as basis for benchmarking competitive advantage and high performance

Resource based studies that use only financial measures of performance hypothesize that, a firm can only obtain superior financial outcomes if it possesses superior resources that confers its competitive advantage (Liu, Timothy & Gao 2010). In addition, Koonce & Lipe (2010) found that performance benchmarks and earnings trends both provide information about a firm's future prospects and management's credibility. In fact, Porter (1985), Coyne (1986) and Arend (2003) all agree that competitive advantage may not necessarily lead to superior profits, but that in a competitive market a firm can only sustain superior financial position if it enjoys a competitive advantage.

Studies that rely on financial measures of performance are guided by the above statements that financial outperformance of peers is directly linked to

advantage. competitive Various local and international studies used financial performance as benchmarks to explain superior performance. Examples of popular financial-based assessment of performance are the annual Business Times Top 100 Company Awards (Sunday Times 2010) and the annual Finweek Top 200 report. The Business Times calculates the top 100 South African performers on the basis of annual share-price performance and reinvested dividends. The annual Finweek Top 200 calculates the SA superior performers on the basis of a so-called 5 year weighted average composite financial ratio index, made up of return on equity, operating profit margins, current ratio, total asset turnover and the gearing ratio.

Mehra (1995) and Lin (2007) used different performance measure for the USA banking industry – Mehra's measure include profit per employee, return on average assets, and price earning ratios while Lin employed averages of return on equity, market value added, Tobin's q and market-to-book value ratio. Yip, Devinney & Johnson (2009) selected profit margin (%), return on shareholders' funds (%), return on total assets (%), return on capital employed (%), and cash flow to operating revenues (%) as basis for identifying superior performance in the United Kingdom.

Roberts & Amit (2003) used return on assets as an indication of bank performance in Australia. Bacidore, Boquist, Milbourn & Thakor (1997) introduces two additional performance measures namely "EVA" and "REVA". According to Bacidore et. al. EVA is defined as the net operating profit after taxes or the weighted average cost of capital multiplied with the adjusted book value of net capital at the beginning of the period while REVA uses the market-value and market based weighted average cost of capital.

In a recent study between financial and nonfinancial performance measures in multinational companies the survey results reveal the dominance of financial metrics in performance measurement, suggesting that the financial perspective is the most widely adopted measurement perspective in relationships between headquarters and subsidiaries (Dossi & Patelli, 2010).

Jim Collins is well respected and recognised for his research of high performance in organisations. What is significant is that Collins (2005) identified high performance leadership, out of the seven factors, as a very important aspect to leverage an organisation from good to great. Collins (2005:1) argues that: "The key ingredient that allows an organisation to become great (see Figure 1) is having a level 5 leader". Level 5 refers to the highest level in the hierarchy of executive capabilities. Leaders at the other four levels in the hierarchy can produce high degrees of success but not enough to elevate organisations from mediocrity to sustained excellence and performance. However, Collins also use monetary criteria and financial ratios (ratio of cumulative stock returns to general market) to identify these "great" companies.

Figure 1. The impact of high performance leadership on the performance of organisations



Years from transition

Source: Collins (2005:12)

It became obvious that financial metrics of peers is the generic "attribute" when defining high performance and/or benchmarking of business performance. We explore this and other guidelines for selection of high performers in the next sections.

5 Criteria for sample selection and benefits of benchmarking high performance

This section deals with criteria for sample selection of individual sustainable high performing companies, the benefits of benchmarking these companies and visualizing the benchmarking and selection process.



5.1 Guidelines

There are various building blocks of high performance and criteria that points to outperforming peers over time. We focus on the various criteria or benchmarks to "mirror" the performance of individual companies and then to identify the sustainable high performers based on these criteria. The guidelines or criteria for sample selection are listed in Table 1.

 Table 1. Sample selection criteria for performance benchmarks

Sustainability	The company had to have been in existence for at least 10 years until 2009. This criteria ensured we had sustainable and relative long-term performers
Metric benchmarks	¹ Net Profit Margin (NPM) %, Return On Assets (ROA) %, Return On Equity (ROE) %, Change in turnover (CIT) %
Data types	Standardized data were used by McGregor/BFA to compare the same type of data. This is necessary because the accounting conventions used by companies differ (see Financial Mail - Top SA Companies, 2010 and Finweek - The top 200, 2010)
Exclusion of mining companies	Mine companies were excluded because of their depleting asset base. Industrial mining and metals companies were included.
Exclusion of banks and insurance companies	Banks and insurance companies were excluded because of different financial reporting principles
Extraordinary items	All ratios are calculated before taking extraordinary and exceptional items into account

5.2 Benefits of benchmarking

2 outlines the benefits of benchmarking for SAP, the multinational software company.

Sections 5.2 and 5.3 outlined specific applications and benefits of benchmarking in various industries. Table

Table 2. Business performance benchmarking from SAP (2010)

- Establish a performance baseline prior to a business transformation or implementation project
- Make comparisons between divisions/geographies and with external peers
- Compare current to past performance (year-on-year analysis)
- Prove success after the completion of a business transformation or implementation project
- Maintain a dashboard for continuous improvement
- Build an iron-clad business case

Source: SAP. 2010. When and Why to Benchmark (Business performance benchmarking from SAP) see www.sap.com

Benchmarking standardized business performance makes it possible to compare companies on the same footing and to identify sustained excellence and superior performers.

5.3 Process of benchmarking peers

The "<u>benchmark of peers</u>" in this study is those companies which existed for 10 years in 2009. Ten years were used for two reasons. Firstly, because it covers two business/economic cycles and secondly because of the lack of available data over longer periods. The process of benchmarking and selection of the high performers is set out in Figure 2.



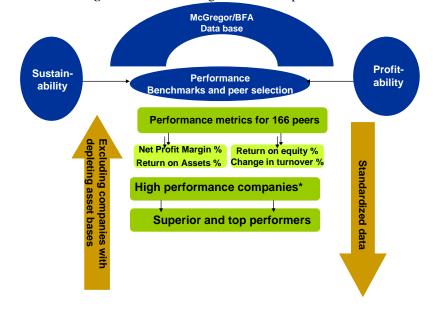


Figure 2. Benchmarking and selection process

*Companies who satisfied the performance criteria

This means that 166 companies were included in the metric benchmarks in terms of percentage change in annual revenue growth, net profit margin(%), return on total assets(%) and return on equity(%). Table 3 indicates these performance benchmarks for the 166 companies over 10 years from 2000-2009.

Table 3. Performance benchmarks. 2000-2009	

BENCHMARKS	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Net Profit Margin %	9.545	7.217	7.877	4.4908	7.016	10.693	10.225	10.7947	9.7148	7.552
Return On Assets %	8.828	9.533	7.919	11.202	13.26	14.868	13.172	14.0456	14.196	12.67
Return On Equity %	22.14	18.94	22.61	13.903	20.91	32.232	35.945	35.0791	32.198	24.81
Change in turnover										
%	5.395	11.139	20.711	13.981	2.024	16.202	19.860	20.269	21.874	4.329

Source: McGregor/BFA data base.

The above performance criteria over 10 years proof that the high performers are consistent per year for every year from 2000-2009. However we agree with Yip, Devinney & Johnson (2009: 405) that "it is important to recognise that more or less stringent criteria would not change the order of firms or limit the reliability of the technique - it would just change the definition of what it means to be in the set of superior long-term performers". The guidelines are set but, the level of benchmarks change over time. Figure 3 indicates the changing landscape and development of these standardized peer performance benchmarks from 2000-2009.

VIRTUS 327

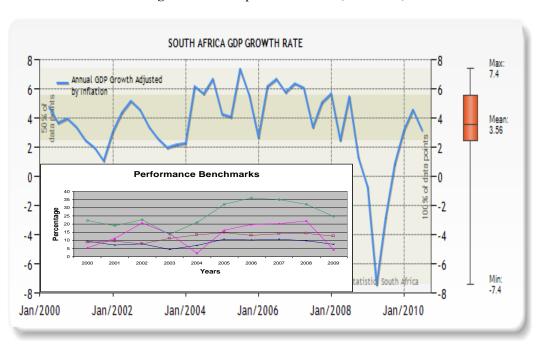


Figure 3. Peer benchmark development from 2000-2009 (Based on Table 3: 166 peer companies)

Figure 3 shows a clear picture of the changing performance landscape and almost the same trend for the metrics. Al the metrics show upward trends from 2000-2006/7 and then a downward trend from 2007-2009. The challenge for high performance companies is to sustainably outperform these peer benchmarks every year.

The transposition of figure 4 on South Africa's GDP growth data from 2000 to the end of 2009 shows an interesting picture. Figure 4 indicates that the development curve of the peer benchmark follows the GDP curve to a great extent in South Africa.

Figure 4. GDP vs peer benchmarks (2000-2009)



Our research approach progressed resulted in identifying those companies that recorded 80% superior performance and top performers, meaning who outstripped all the benchmarks between 70% and 80% of the from 1999-2009. Figure 5 gives a clear picture of the development of the benchmark cluster from 2000-2010.



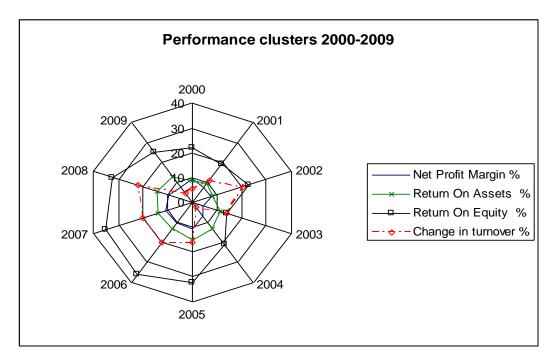
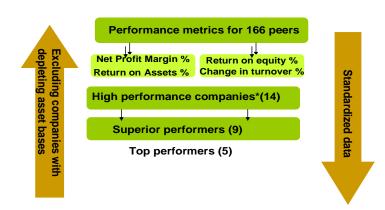


Figure 5. Peer performance benchmark clusters from 2000-2009

Net profit margins are clustered along the 10% percentile in figure 4 while the ROA's and change in turnover are in the 10-20% percentile. The ROE's are clustered from the 20-40% percentile. The next phase is to use the

benchmarks in figures 2 and 4 as a scoring mechanism to identify the companies with the sustainable superior returns based on the guidelines in table 1. Figure 6 shows the result of the application of the scoring mechanism.

Figure 6. Process of identifying superior and top performers



*Based on scoring mechanism

As stated above, a superior performer is defined as a company that sustainably outperformed at least 80% of the peer benchmark across industries, business and economic cycles, as measured by accepted standardized financial metrics from 2000-2009. A top performer is any company that sustainably outperformed at least 70% of the peer benchmark across industries, business and economic



cycles, as measured by accepted standardized financial metrics from 2000-2009. Appendix 1 shows the cumulative benchmark for superior and top performers from 2000–2009 where 1 equals a level of satisfaction of 80% or more of the benchmark and 0 a satisfaction level between 70 and 79% of the benchmark.

6 Qualifying industries and companies based on the performance benchmarks

It can be established from figure 6 that 14 companies qualified as high performance companies, of which 9 delivered sustainable superior long term results over the 10 year period. The 5 top performers outperformed the performance benchmarks in at least 70% of the time until 2009. Table 4 identifies these companies and the industries they represent.

Industry	Super Sector	Superior performer (>=80% of criteria)	Top performer (70-79%) of criteria)		
Telecommunications	Telecommuni- cations	MTN Group Ltd			
Consumer services	Retail	Italtile Ltd			
Consumer services	Media	Kagiso Media Ltd			
Industrials	Construction & Materials	Pretoria Portland Cement Co			
Consumer services	Retail	Truworths International Ltd			
Health Care	Health Care	Aspen Pharmacare holdings Ltd			
Consumer Services	Travel & Leisure	City Lodge Hotels Ltd	Famous brands Ltd		
Technology	Technology	EOH Holdings Ltd	Adaptit holdings Ltd UCS group Ltd		
Industrials	Industrial Goods & Services	Digicore holdings Ltd	Reunert Ltd		
Oil and Gas	Oil and Gas		Sasol Ltd		

Table 4. Companies identified as long-term superior and top performers: 2000-2009

7 Discussion of individual superior performers and further research

Figure 7 gives a visual display of the sustainable performance of the 9 super performers on beating at least 80% of the cumulative performance benchmarks over 10 years based on data in Table 3. Appendix 1 shows the cumulative benchmark for superior and top performers where 1 equals a satisfaction level of 80% or more and 0 a satisfaction level between 70 and 79% of the benchmark. It is clear that these listed companies consistently outperformed their peers across industries, business and economic cycles, as measured by the four standardized financial metrics. MTN Group is the top performer followed by Italtile, Kagiso Media, Pretoria Portland Cement and Truworths International. Aspen Pharmacare, City Lodge Hotels, EOH holdings and Digicore Holdings are in the next group of sustainable superior performers. It is interesting that the super performers

come from the following sectors, namely telecommunications, construction, retail, media, travel and leisure, industrials, health care, technology and industrial goods and service. These are all consumer driven sectors and depend heavily on disposable income streams and the business environment.

Prior research studies in strategy, particularly those related to the resource-based and dynamic capabilities theories, have emphasized firm specific advantage and sustainable performance(see Liu, Timothy & Gao, 2010). This article discussed the importance of guidelines for setting sustainable and profitable performance benchmarks across industries and business cycles using published standardized data. Performance clusters based on a peer group of 166 listed JSE companies over 10 years were created and individual superior and top performers were identified.

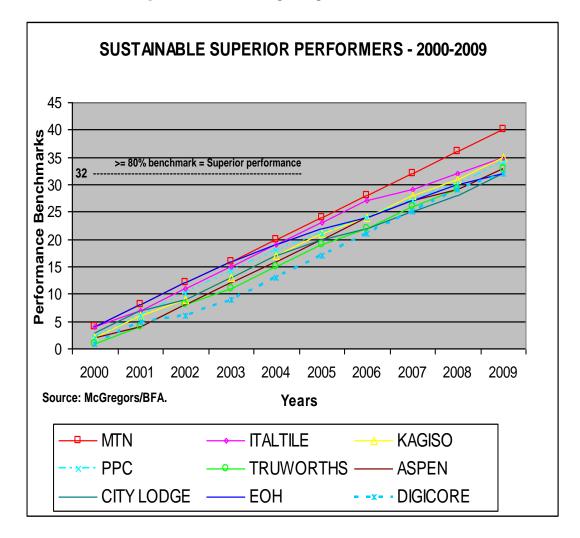


Figure 7. Sustainable superior performers. 2000-2009

However, for performance measurement to be used as an effective 'tool for power', it is important that performance indicators are linked with strategy (Micheli, & Manzoni, 2010). Future research should be focused on establishing the following:

- Performance anatomy of organizations (core drivers of performance in different business industries that create sustainable competitive advantage)
- Characteristics of sustainable high-performance businesses (HPBs)
- Competencies and skills and behaviours needed to become a HPB
- Paradigm and mind shifts to calibrate human capital with organizational performance
- Develop "performance genes" as part of the DNA strings/model to explain the business rational of HPB
- Possible link between market positioning and distinctive capabilities with performance anatomy

Scientific and unbiased researchers and performance practitioners need a consistent and thorough understanding of what it means to measure and benchmark performance but also what defines a high performance company.

8. Summary

Creating sustainable high performance for the long term will require more than setting performance benchmarks and trying to beat them or the competition. It will entail new thought processes, radical sense of innovation and a mind shift in evaluating value for shareholders and stakeholders. High and superior performers will consistently create line-of-sight between their strategies, organizational and individual performance and align their strategic objectives and business models with their own performance benchmarks.



Endnote

1 NPM % (Profit After Taxation / Turnover) *100, ROA % (Profit Before Interest And Tax (EBIT) - Total Profit, ROE % (Profit After Taxation / Total Owners Interest) *100), CIT% Turnover in year 1/Turnover in previous year *100)

References

- Ahn, H. 2001. Applying the Balanced Scorecard concept: an experience report, *Long Range Planning* 34 (4) 441–461.
- Arend, R.J. 2003. Revisiting the logical and research considerations of competitive advantage. *Strategic Management Journal* 24: 279–284.
- Atkinson, A.A., Waterhouse, JH & Wells, RB. 1997. A stakeholder approach to strategic performance measurement, *Sloan Management Review* 38 (3), 25– 37.
- Berthon, B., Grimsley, J., Lacy, P. & Abood, D. 2008. Achieving high performance: the sustainability imperative. Accenture. Accenture.com.
- Bacidore, J. M., J. A. Boquist, T. T. Milbourn and A. V. Thakor. 1997. The search for the best financial performance measure. *Financial Analysts Journal* (May/June): 11-20.
- Bird, A., Buchanan, R. & Rogers, P. 2004. The seven habits of an effective board. *European Business Journal*: 128-132.
- 7. Breene, T. & Thomas, R. 2004. In search of performance anatomy. *Accenture Out*look, (3), 28-35.
- Breene, T. & Nunes, P.F. 2006. How the world's best companies achieve high performance. *Accenture Outlook*, (3), 10-16.
- Collins, J. 2005. Level 5 leadership: The triumph of humility and fierce resolve. *Harvard Business Review*. 79(1), 66-76.
- 10. Coyne, K.P., 1986. Sustainable competitive advantage what it is, what it isn't. *Business. Horizons*, 29, 54-61.
- Daniel, G., Sornette., D & Woehrmann, P. 2010. Look-Ahead Benchmark Bias in Portfolio Performance Evaluation. *Journal of Portfolio Management*, 36 (1), 121-130.
- 12. De Witte, K. & Marques, RC. 2010. Designing performance incentives, an international benchmark study in the water sector. *Central European Journal of Operations Research*, 18 (2), 189-220.
- Dossi, A. & Patelli, L. 2010. You Learn From What You Measure: Financial and Non-financial Performance Measures in Multinational Companies. *Long Range Planning* 43 (4),498-526.
- 14. Financial Mail. 2010. Top companies 2010. SA's leading review of listed companies. 24 June 2010.
- Finkelstein, S., Harvey, C & Lawton, T. 2007. Breakout strategy: Meeting the challenge of doubledigit growth. McGraw-Hill: London UK.
- 16. Finweek. 2010. The top 200. A review of business achievement. 2010. 25 March 2010.
- Gimbert, X., Bisbe, J & Mendoza, X. 2010. The Role of Performance Measurement Systems in Strategy Formulation Processes . *LONG-TERMLong Range Planning*, 43 (4), 477-497.
- Hartzell, J.C., Mühlhofer, T & Titman, SH. 2010. Alternative Benchmarks for Evaluating Mutual Fund Performance. *Real Estate Economics*, Spring 2010, 38 (1), 121-154.

- Harvard Business School. 2010. Institute for Strategy and Competitiveness - www.isc.hbs.edu . Accessed on 27 October 2010.
- Hough, J., Thompson, A., Strickland, AJ. & Gamble, J. 2011.Crafting and Executing Strategy. Creating sustainable high performance in South Africa. Second SA edition. McGraw-Hill, London.
- 21. Jenkins, M., Pasternak, K & West, R. 2009. *Performance at the limit: business lessons from Formula 1 motor racing.* Cambridge University Press: Cambridge UK.
- Kolehmainen, K. 2010. Dynamic Strategic Performance Measurement Systems: Balancing Empowerment and Alignment . *Long Range Planning* 43 (4), 527-554.
- Koonce, L.L., & Lipe, M.G. 2010. Earnings Trend and Performance Relative to Benchmarks: How Consistency Influences Their Joint Use. *Journal of Accounting Research*, 48 (4), 859-884.
- Kirby, J. 2005. Toward a theory of high performance, *Harvard Business Review* 83(7), 30-39.
- Levine, R., Drucker., E & Rosenthal,S. 2010. The Problems and Challenges of High-Yield Bond Benchmarking. *Journal of Portfolio Management*, 36(4), 93-98.
- Liu, L., Timothy, V & Gao, Y. 2010. A review of approaches of resource-based empirical research in banking. *International Journal of Applied Economic Finance*, 4, 230-241.
- 27. Lin, B.W., 2007. Information technology capability and value creation: Evidence from the US banking industry. *Technol. Soc.*, 29: 93-106.
- Lu, W-M. & Hung, S-W. 2008. Benchmarking the operating efficiency of global telecommunication firms. *International Journal of Information Technology & Decision Making*, 7(4), 737-750.
- 29. McGregors/BFA. http://www.mcgregorbfa.com.
- Mehra, A., 1995. Resource and market based determinants of performance in the U.S. banking industry. *Strategic Management Journal*, 17, 307-322.
- 31. McGee, J.V. 1992. *What Is Strategic Performance Measurement?*, Ernst & Young Center for Business Innovation, Boston, MA.
- Micheli, P. & Manzoni, J-F. 2010. Strategic Performance Measurement: Benefits, Limitations and Paradoxes. *Long Range Planning* 43 (4), 465-476.
- 33. Peters, T.J. & Waterman, RH. 1982. In Search of Excellence: Lessons from America's Best Run Companies, Harper & Row, New York.
- Pink, G., Holmes, H., Slifkin, R & Thompson, RE. 2009. Developing Financial Benchmarks for Critical Access Hospitals. *Health Care Financing Review*, Spring, 30(3), 55-69.
- 35. Porter, M.E., 1985. *Competitive Advantage*. 1st Edition, Free Press, New York.
- Roberts, P.W. & Amit, R. 2003. The Dynamics of innovative activity and competitive advantage: The case of Australian retail banking, 1981 to 1995. *Organ. Sci.*, 14: 107-122.
- Roos, G & Roos, J.1997. Measuring your company's intellectual performance, *Long Range Planning* 30 (3), 413–426.
- SAP. 2010. When and Why to Benchmark (Business performance benchmarking from SAP, see www.sap.com. Accessed 16 August 2010.

VIRTUS

- Söderberg, M. 2009. A broad performance benchmark based on citizens' preferences: the case of Swedish public transportation. *Annals of Public & Cooperative Economics*, 80(4), 579-603.
- 40. Sunday Times. 2010. Survey of Top 100 SA Companies. Business Times Survey. 7 November 2010.
- Yip,G.S., Devinney,T.M. & Johnson,G. 2009. Measuring long-termsuperior performance. The uk's long-term superior performers: 1984-2003. Long Range Planning (42), 390-413.

Appendix 1 Cumulative benchmark for superior and top performers from 2000 – 2009. 1= satisfy >= 80% of benchmark, 0= satisfy 70-79% of benchmark

Company	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
MTN NPM	1	1	1	1	1	1	1	1	1	1
MTN ROA	1	1	1	1	1	1	1	1	1	1
MTN ROE	1	1	1	1	1	1	1	1	1	1
MTN CIT	1	1	1	1	1	1	1	1	1	1
Cumulative number	4	8	12	16	20	24	28	32	36	40
PPC NPM	1	1	1	1	1	1	1	1	1	1
PPC ROA	1	1	1	1	1	1	1	1	1	1
PPC ROE	0	1	1	1	1	1	1	1	1	1
PPC CIT	0	1	1	1	1	0	0	0	0	1
Cumulative number	2	6	10	14	18	21	24	27	30	34
CITY LODGE NPM	1	1	1	1	1	1	1	1	1	1
CITY LODGE ROA	1	1	1	1	1	1	1	1	1	1
CITY LODGE ROE	0	1	0	1	1	0	0	1	1	1
CITY LODGE NPM	1	1	0	1	1	1	0	0	0	1
Cumulative number	3	7	9	13	17	20	22	25	28	32
ITALTILE NPM	1	1	1	1	1	1	1	1	1	1
ITALTILE ROA	1	1	1	1	1	1	1	1	1	1
ITALTILE ROE	1	1	1	1	1	1	1	0	1	1
ITALTILE CIT	1	0	1	1	1	1	1	0	0	0
Cumulative number	4	7	11	15	19	23	27	29	32	35
REUNERT NPM	1	0	1	1	1	0	1	0	1	1
REUNERT ROA	1	1	1	1	1	1	1	1	1	1
REUNERT ROE	1	1	1	1	1	1	1	0	1	1
REUNERT CIT	0	1	0	1	1	0	0	0	0	0
Cumulative number	3	6	9	13	17	19	22	23	26	29
TRUWORTHS NPM	0	1	1	1	1	1	1	1	1	1
TRUWORTHS ROA	1	1	1	1	1	1	1	1	1	1
TRUWORTHS ROE	0	1	1	1	1	1	1	1	1	1
TRUWORTHS CIT	0	0	1	0	1	1	0	1	0	1
Cumulative number	1	4	8	11	15	19	22	26	29	33
EOH NPM	1	1	1	1	0	0	0	0	0	0
EOH ROA	1	1	1	1	1	1	1	1	1	0
EOH ROE	1	1	1	1	1	1	1	1	1	1
EOH CIT	1	1	1	1	1	1	0	1	1	1
Cumulative number	4	8	12	16	19	22	24	27	30	32
KAGISO NPM	0	1	1	1	1	1	1	1	1	1
KAGISO ROA	1	1	1	1	1	1	1	1	1	1
KAGISO ROE	0	1	1	1	1	1	1	1	1	1
KAGISO CIT	1	1	0	1	1	1	0	1	0	1
Cumulative number	2	6	9	13	17	21	24	28	31	35
ADAPTIT NPM	0	1	1	1	1	1	1	0	1	1
ADAPTIT ROA	0	1	1	1	1	1	1	1	1	1
ADAPTIT ROE	0	1	1	1	1	1	1	1	1	1
ADAPTIT CIT	1	0	1	0	1	0	0	1	0	1



Cumulative number	1	4	8	11	15	18	21	24	27	31
ASPEN NPM	0	1	1	1	1	1	1	1	1	1
ASPEN ROA	1	1	1	1	1	1	1	1	1	1
ASPEN ROE	0	0	1	1	1	1	1	1	0	1
ASPEN CIT	1	0	1	1	1	1	1	0	0	1
Cumulative number	2	4	8	12	16	20	24	27	29	33
DIGICORE NPM	0	1	0	1	1	1	1	1	1	1
DIGICORE ROA	0	1	1	1	1	1	1	1	1	1
DIGICORE ROE	0	1	0	1	1	1	1	1	1	1
DIGICORE CIT	1	1	0	0	1	1	1	1	1	0
Cumulative number	1	5	6	9	13	17	21	25	29	32
Famous Br NPM	0	0	0	0	1	1	1	1	1	1
Famous Br ROA	1	1	1	1	1	1	1	1	1	1
Famous Br ROE	1	1	1	1	0	0	1	1	1	0
Famous Br CIT	1	0	0	1	1	1	1	1	1	1
Cumulative number	3	5	7	10	13	16	20	24	28	31
SASOL NPM	1	1	1	1	1	1	1	1	1	1
SASOL ROA	1	1	1	1	0	1	0	1	1	1
SASOL ROE	1	1	1	1	0	0	0	0	1	0
SASOL CIT	1	1	1	0	0	0	0	0	1	1
Cumulative number	4	8	12	15	16	18	19	21	25	28
UCS NPM	1	1	1	0	0	0	1	1	0	0
UCS ROA	1	1	1	0	1	1	1	1	1	1
UCS ROE	1	1	0	0	1	1	1	1	1	1
UCS CIT	1	1	1	1	1	0	1	1	0	1
Cumulative number	4	8	11	12	15	17	21	25	27	30

Source: Based on data from McGregor/BFA.

VIRTUS NTERPRESS® 334