Marketing metrics use in South Africa

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of

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ABSTRACT

The marketing function has been under immense pressure to be more document it contribution to the performance of the firm, this pressure comes from shareholders seeking a return on their funds, CEO's seeking savings and from their peers as they seek to become more relevant in the organisation.

Efforts to track marketing have been hindered by among other issues a lack of numeracy by marketers, the primacy of financial measurements and a laundry list of metrics from research and practice that makes it hard to chose, few and pertinent ones.

The use of marketing metrics has proven to contribute to better business performance, and during recessions when budgets are tight, it becomes even more urgent that the marketing function have and understand marketing metrics.

This study aimed to evaluate the extent of marketing metrics use in South Africa, determine the levels and frequency of review, examine whether use of metrics changes due to severe economic conditions and evaluate whether the change in use of metrics contributes to better firm performance.

The study found that use, review and collection of metrics is at par with other countries, but there is no change in the level and frequency of review during a recession. Evidence was found of better firm performance that is linked to the change of use of metrics.

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DECLARATION

I declare that this research project is my own work. It is submitted in partial fulfilment of the requirements for the degree of Master of Business Administration at the Gordon Institute of Business Science, University of Pretoria. It has not been submitted before for any degree or examination in any other University. I further declare that I have obtained the necessary authorisation and consent to carry out this research.

Waweru Mathare

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Signed on this Eleventh Day of November, The year of our lord Two Thousand and Nine

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1. PROBLEM DEFINITION

1.1. Introduction

The marketing function has been under immense pressure to be more accountable to their CEOs and Boards. Doyle (2000, p.233) states that marketing has not had the impact its importance justifies, he adds that has been due to the function's lack of clear objectives. "As a consequence top management is often sceptical about the contribution of marketing in creating shareholder value."

Clark (2001) identified four drivers for this increased need for accountability:-

I. Organisations have extracted all the benefits they could from cost cutting and are thus looking for marketing for increased revenues.

II. The push for accountability has also been heightened by cost reduction in manufacturing and administration, which has led to the marketing function having a larger share of firm's total budget.

III. The push by investors for more information regarding marketing activities

IV. The growth of multidimensional performance management schemes such as the balanced scorecard have led those involved to consider what marketing performance measures belong in these schemes.

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The low interest of top management in marketing could be changed if practitioners were able to document marketing's return on investment Gronholdt and Martensen (2006).

This accountability has been hindered by difficulties with measurement. The reason why marketing performance has been hard to measure may be due to the fact that marketing is the interface between organisations and consumers and the complexity of this relationship should not be underestimated, however that does not mean that marketing should not be measured and benchmarked.

O'Sullivan & Abela (2007) find that regular calls have been made to marketing professionals to develop and improve on their ability to account for their function's contribution to firm performance; this has faced challenges posed by the proliferation of marketing metrics from both a theoretical and practical perspective Gronholdt and Martensen (2006)

While it has been generally accepted that marketing metrics are necessary however, the selection of these metrics has not been a straightforward task.

Ambler, Kokkinaki, & Puntoni (2004), established a list of 19 metrics which were considered, by their respondents to be the most important and reviewed. However this list was narrowed down from a list of 54 metrics. This illustrates the difficulty facing managers as there are too many proposed metrics for managers to measure.

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As early as ten years ago, Clark (1999, p.712) called for a reduction of marketing measures and an increased understanding of the interrelationships between these measures, adding that " figuring which of these measures are really important may drive a conscientious manager to despair." That call still appears pertinent today.

The despair described above would be heightened if the manager were facing a recession, as firms would be tempted to reduce expenditures on promotion and marketing, Pearce and Michael (2006). They further argue that firms in a recession have the option of retrenching, by reducing costs and assets. Part of these costs may be marketing budgets.

Dire market conditions such as recessions add greater pressure for marketers to develop relevant marketing metrics.

In tough economic conditions, when budgets are tight and marketing must justify itself more vigorously to secure funding. Koksal and Ozgul (2007) find that firms should increase promotional spend during recessions, as this results in better firm performance, Therefore marketing measures must be scientifically chosen. Metrics should greatly assist firms in determining their marketing efforts and ensuring business success.

The study into the use of these metrics or marketing in general during recessions appears to be very limited. Srinivasan, Rangaswamy and Lilien, (2005), found only three articles addressing marketing during a recession in the last 20 years. This author did not find any research addressing the use of marketing metrics during recessions.

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1.2. Research Scope

The scope of this research is to determine the prevalence of marketing metrics use in South African companies, the impact that a recession has on the collection and review of these metrics and whether changes in collection and review of marketing metrics affects business performance during recessions. This study is partly based on a study by Farley, Hoenig, et al. (2008) and the metrics tested will be as per their definitions.

1.3. Research Motivation

Day (1990) and Porter (1998) in Llonch, Eusebio and Ambler (2002) state that a firm's survival depends on its capacity to create value and value is defined by it's customers, thus marketing makes a fundamental contribution to long term business success. "The firm should have a business model that tracks how marketing expenditures influence what customers know, believe and feel and ultimately how they behave." Rust, Ambler, Carpenter, Kumar, & Srivastava (2004, p. 76).

In 2007, South African companies spent R23 billion on advertising alone, Financial Mail (2008). Assuming that this was a fraction of their marketing expenditure, then it is clear that the marketing function needs mechanisms to document the returns on these investments and allocate these resources, Gronholdt and Martensen (2006) more efficiently.

The rationale behind this research is to discover the prevalence of use of marketing metrics in South Africa. Study the frequency and level which these metrics are reviewed in South African organisations. Determine whether severe economic

conditions such as a recession, affect the collection and review of these metrics. In addition, examine the impact that the change in use and importance of these metrics affect business performance during a recession.

The latest McKinsey global survey on measuring marketing puts it all in context, it states that “many companies, don’t use basic best practices such as clearly allocating – or even defining - marketing across the whole company or even regularly reviewing the results” McKinsey and Company,(2009, p. 1,).

1.4. Research Problem

The study will attempt to:

I. Evaluate the extent of use of marketing metrics in South Africa.

II. Evaluate the extent to which these metrics are collected and reviewed

III. Determine how a recession affects the use, collection and review of metrics.

IV. Determine whether firms that change the use, collection and review of metrics during a recession perform better than firms that do not change.

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2. LITERATURE REVIEW

2.1. Definition of marketing metrics

Marketing metrics are signposts on a firm's route towards meeting its strategic goals Ambler (2000). Uncles (2005) comes up with a multidimensional definition of what marketing metrics are. He states that on one level metrics are used to gauge the effectiveness of specific programmes and activities, on the next level there are product and service metrics. These are concerned with brand health and customer satisfaction. Finally, there are metrics that link general investments in marketing and market related activities to overall measures of success for the corporation. These metrics defined above "should be tailored to the company's strategy" Ambler (2000, p. 64).

2.2. Evolution of marketing metrics

The question of marketing metrics has long been on the minds of marketing researchers and practitioners. Churchill (1979, p. 64), laments the fact that "Marketers, indeed seem to be choking on their measures." Clark (1999) traces the evolution of marketing metrics through the following steps.

- Single financial output measures such as profits, sales revenue and cash flow, which measured the productivity of marketing efforts in producing positive financial results.

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- Non-financial measures such as market share, quality of services, customer satisfaction, customer loyalty and brand equity. These measures sought to escape the purely financial ones, which were regarded as historical and placed no emphasis on the future of the firm. It was argued that if a firm has a loyal and satisfied customer base they would increase revenue and lower marketing costs because these customers are easy to retain and less expensive to serve. Brand equity allowed firms to charge premiums, lower risk and could be used to expand into new product categories.

- Input measures such as marketing assets, marketing audit, marketing implementation and market orientation. Marketing audits aim to systematically evaluate the appropriateness of a firm's marketing activities and assets given its position, while market orientation refers to the extent of use of market information in a firm.

- Multiple measures: such as efficiency, effectiveness and multivariate analysis. Clark (2000) argues that efficiency examines how best to allocate marketing assets and activities to produce the most output.

The description of the evolution of metrics, though dated, gives one a sense of the history, of marketing metrics. Rust, et al. (2004), looks into the future, arguing for a greater emphasis on models that link marketing tactics to financial impact of a firm. This suggest however a widespread adoption and understanding of methods to measure marketing in the first place.

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O'Sullivan & Abela (2007) identify three branches of marketing performance research. These are measurement of market productivity, identification of metrics in use and measurement of brand equity. It is this second stream of research that this study aims to address. The identification of market metrics in use is a starting point it understanding the role that marketing plays in the performance of South African firms.

2.3. Use of Marketing Metrics

Companies survival depends on future cash flows, which can only come from their customers, thus companies cannot survive without marketing. Ambler (2000). He adds that because marketing is how a firm secures its key objectives and thus it's cash flow then boards should pay more attention to marketing's performance. The basic underlying reason for the use of marketing metrics is that their use will lead to improved firm performance O'Sullivan and Abela (2007).

The use of marketing metrics can be defined as the collection, review and reporting of marketing metrics. Farley and Barwise (2005) report that marketing metrics are widely used around the world, in their comparison of the use of marketing metrics they found that only 4% of the firms surveyed used no metrics. these included 7% of U.S firms. The results for Japanese, French and U.K firms was 6%, 4% and 3% respectively.

Eusebio, Andreu and Belbeze (2006) find that the review of marketing metrics in Spain is performed, annually or quarterly, but that financial measures were reviewed

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more frequently. Ambler (2000) argues that the board of directors should conduct the review of marketing metrics themselves or ensure that the review is done.

Uncles (2005) identifies three reasons for the use of marketing metrics; marketing specific reasons that deal with the allocation of scarce marketing resources, metrics use can also help learn more about who their most profitable customers are and identify who their competitors are. This reasoning sees marketing as a research driven endeavour governed by the collection of information. Secondly, metrics can be used for general management reasons. This views marketing as a revenue generator and it is argues that marketing activities can thus pay for themselves. The last reason he identifies is one of politics where managers use marketing metrics to justify projects.

The fact that market oriented companies are more profitable in the long run than those that are not, Ambler (2000), should be a strong reason for organisations to use marketing metrics. Other reasons that organisations should measure marketing include making marketing more accountable, discouraging short-termism, Ambler,(2000), by focusing on measures like brand contribution. Farley and Barwise,(2005), note that another reason for the use of marketing metrics is the increased pressure from firm's management to justify marketing's contribution to form performance.

Although the use of marketing metrics in business is fraught with challenges including, linking current marketing activities to future results, separating individual marketing actions from other actions and use of financial methods, which prove to be

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inadequate, Rust, et al. (2004). This is compounded by the dispersion of metrics in different parts of organisation, Ambler (2000),

There is general agreement that organisations must continue to invest the time and resources to measure arguably the most important part of the business. As noted earlier this pressure to measure marketing performance will increase in recessionary times when cutting costs is a survival tactic for businesses.

2.4. Selection of Marketing Metrics

Gronholdt and Martensen (2006, p. 244), in reviewing influential articles and books, sought to identify the most vital marketing metrics to use. They found that there was a need for relevant marketing metrics and that the literature offered " a wide and varied palette of possible marketing performance measures". This demonstrates the difficulty of selecting marketing measures for use in practice.

Uncles (2005), writes in an editorial that while most stakeholders agree that marketing metrics matter, there is very little agreement as to what these metrics should be. O'Sullivan and Abela (2007), suggest that the metrics should be financial and non financial, relative to goals set by the firm and relative to the competition.

In selecting metrics Ambler, Kokkinaki, & Puntoni (2004) suggest a framework that will include a category for the marketing actions and expenditures, which they term as inputs and the profits and cash flows arising from these i.e. the outputs, however they observe that the linkages between these two are not always clear.

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Simmonds (1986) in Ambler, Kokkinaki, & Puntoni (2004, p. 480), state that "traditional financial accounting fails to give attention to competitive factors." He proposes that competitors should be tracked on measures that are comparable such as sales and profits.

Ambler, Kokkinaki and Puntoni (2004) identified 19 metrics, which were developed from an initial list of 54 that could be considered as primary general metrics. The selection was based on the reported level of importance of these metrics as well as the level of review of the metrics. These were grouped into six major categories:

The first five fit in into the non-financial measures described by Clark (1999) above while the sixth category describes the single financial output measures.

a) Consumer attitudes which measured the level of awareness, perceived quality of the product by consumers, relevance of the products to the consumer, brand and product knowledge amongst other measures.

b) Consumer behaviour: This measured the total number of consumers, numbers of new customers, Loyalty of consumers, and the number of consumer complaints

c) Trade Customer: Which measured customer satisfaction of trade customers as well as number of complaints

d) Relative to Competitor: This metrics measured the relative satisfaction of consumers and the perceived quality of the products

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e) Innovation: This measured the number, revenue and margins of new products

f) Accounting: These were traditional metrics concerned with sales, gross margins and profitability.

Ambler, Kokkinaki and Puntoni (2004) find that accounting measures remain the dominant metrics categories relative to consumer behaviour, trade customer, competitor and innovativeness.

Marketing managers have come up with a variety of metrics to evaluate campaigns and justify their performance, Doyle (2000). He further states that the most common criteria for measuring the effectiveness of marketing are increases in sales and market share.

Gronholdt and Martensen (2006) study arrived at a short list of marketing metrics which is shown below.

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Mental consumer results Brand awareness[1] Relevance to consumer Perceived differentiation Perceived quality/esteem[1] Relative perceived quality[1] Image/reputation Perceived value Preference Customer satisfaction[1] Customer loyalty/retention (intention)[1 2] Likelihood to recommend	**Market results** Sales (volume and value)[1] Sales to new customers Sales trends[2] Market share (volumen and value)[1 2] Market trend[1 2] Number of customers[1] Number of new customers Number of new prospects (leads generated/inquiries) Conversion (leads to sales) Penetration Distribution/availability[1 2] Price Relative price (SOM value/volume)[1] Price premium Price elasticity
Behavioural customer results Customer loyalty/retention[1 2] Churn rate Number of customer complaints[1] Number of transactions per customer Share of wallet	**Financial results** Profit/profitability[1] Gross margin [1] Customer profitability Customer gross margin Cash flow Shareholder value/EVA/ROI Customer lifetime value

Notes: [1] One of the 15 most commonly used measures according to Ambler and Puntoni (2003).
[2] One of the 10 most valuable measures according to Davidson (1999).

Table 1: Short List of Marketing Performance Measures based on Literature Review Gronholdt and Martensen (2006, p.248)

For this study, the metrics selected were based on those used by Farley, Hoenig, et al. (2008) which were modified from those developed by Ambler, Kokkinaki and Puntoni (2004).

The rationale behind this selection was that the metrics developed by Ambler, Kokkinaki and Puntoni (2004), have been quoted widely in the marketing metrics literature.

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They have also been used in studying marketing metric use in different countries; namely in Vietnam by Farley, Hoenig, et al. (2008) and in Spain by Eusebio, Andreu and Belbeze (2006).

Lastly these measures were judged to represent the broad range of marketing activities that would be found in South Africa.

The marketing metrics and that were selected are discussed in detail in the section below. The categories of marketing metrics below represent a broad range of marketing activities as identified in the literature. The measurement of these metrics will inform a firm no the performance of their marketing efforts and eventually lead to increased business performance.

2.5. Brand Equity

According to Clark, (1999), a powerful brand is among the greatest marketing tool a firm can have. Ambler (2000) in Ambler, Kokkinaki and Puntoni (2004) describes brand equity as the reservoir of cash that has been earned by good marketing but has yet to materialise into sales or profits.

Clark (1999) argues that strong brands allow firms to charge higher prices over non-branded competing goods and brands can be used to extend a company's business into other product markets Pitta, Katsanis and Prevel (1995) which can serve to reduce risk to customers and investors.

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Clark (1999), states that while brand equity is a powerful measure of performance, it is also hard to use as a short-term measure of performance for managers. Ambler, Kokkinaki, & Puntoni (2004) argue that financial measures of brand equity are synonymous with accounting measures i.e. they are expressed in currency or as ratios of currency. They further state that brand equity is widely measured but rarely integrated into a formal assessment system.

Brand Equity is expensive and can take years and to build Clark (1999) and according to Pitta, Katsanis and Prevel (1995, p.51), introducing a new brand into the market place, costs upwards of $ 50 million. They state that " by leveraging the brand equity of a successful brand promises to make introduction of a new entry less expensive by trading on an established name."

It is thus essential that firms should develop mechanisms to track the performance of these assets. It should follow that in any economic climate, products with huge brand equity will have an advantage over those without. In a recession, it should be even more important that managers track the performance of their brands, because in an environment of decreased sales, a strong brand may be useful in attracting sales and launching new products.

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2.6. Customer Based Metrics

2.6.1. Customer Acquisition

Gupta and Zeithaml (2006) define customer acquisition as the first time purchase by new or lapsed customers. Pearce and Michael (2006) argue that during a recession a firm needs to attract new customers in order to offset those that are leaving. During recessions consumers, cut back or delay expenditure, thus to offset this loss of revenue the organisation needs to recruit new customers.

Pearce and Michael (2006), argue for a three-pronged approach that focuses on evaluating new customers' needs, then providing solutions, rather than products to meet these needs. This increases the chance of retaining the customer after the recession. Lastly, the firm should maintain visibility in various forums as this signals that the firm is ready to serve during a recession.

Measuring the level of customer acquisition enables a firm to gauge how well its recruitment efforts are. Consumers are the lifeblood of companies Gupta and Zeithaml (2006), as they bring in revenue. A firm should therefore, track the rate at which it is attracting new customers. During recessions, as firms' loose customers due belt tightening, these metrics are even more important

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2.6.2. Customer Satisfaction

Gupta and Zeithaml (2006) define customer satisfaction as a customer's judgement that a product or service meets or falls short of expectations. A satisfied customer base is important as it leads to loyalty Clark (1999), which implies increased revenue and lower marketing costs. He adds that there are different definitions of what customer satisfaction is leading to confusion amongst managers on what exactly they should measure.

Rust, et al. (2004) argue that the consequences of customer satisfaction include; increased buyer willingness to pay a price premium, to provide referrals, to use more of the product, lower sales and service costs, greater customer retention and longevity.

Morgan and Rego (2006), find evidence that a firm's ability to satisfy its customers in an important determinant of its business performance, they further suggest that firms monitor customer complaints as they provide valuable insights into customer satisfaction and can predict future business performance.

Gupta and Zeithaml (2006) cite studies that show a strong link between customer satisfaction and firm performance. They find in their study a strong positive correlation between customer satisfaction and a firms'' market value.

During tough economic times, a firm should endeavour to continue its efforts to satisfy its customer base. One may hypothesize that a satisfied customer during a

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recession is likely to be more loyal to a firm during boom times. The only way a firm can gauge how well it is doing in satisfying its customer is by collecting data.

2.6.3. Customer Loyalty

Gupta and Zeithaml (2006), state that consumers are defined as loyal if they continue to buy the same product over some period. They note however that other studies have shown this definition to be simplistic as consumers can change loyalty due to a myriad of factors, one of which may be tough economic conditions when customers may regress along the consumption chain, Goodell and Martin (1992).

A satisfied customer base is more profitable and should increase the company's growth rate, Doyle (2000). He further states that loyal customers purchase more of company's goods, are cheaper to serve and bring in new customers. Monitoring customers repurchase intentions is worthwhile, Morgan and Rego (2006); this indicates the base of loyal customers a firm has.

During a recession as noted in the literature consumers may opt for cheaper goods that will "satisfice" them Goodell and Martin (1992, p.8). This implies that consumers who would ordinarily be loyal to a product or brand will change their preferences to counter their diminishing buying power and also to conserve cash as they are worried about the future, Pearce and Michael (2006).

It is thus imperative that a firm monitors the level of customer loyalty during a recession. Having loyal customers during a recession intuitively means that they will

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be loyal during good economic times, thus ensuring that the customer lifetime values are much more positive.

2.6.4. Customer Lifetime Value

Gupta and Zeithaml (2006, p. 724), define this as "the present value of all future profits obtained from a customer over the life of his relationship with a firm." Rust, et al. (2004), define customer equity as the sum of the lifetime values of all the firm's current and future customers where lifetime value is the discounted profit stream obtained from the customer.

Customer Lifetime Value and its aggregate customer equity are thus a direct result of customer satisfaction, which leads to customer loyalty. The loyal and satisfied customers are as noted in literature above, cheaper to service and easier to retain. Increased retention rates lead to increased lifetime values and equity, which can also be equated to current and future earnings. Customer lifetime value is thus an aggregate measure of how well a firm is performing relative to its customers.

2.7. Channel Metrics

Ailawaldi, Lehmann and Neslin (2003) in Gensler, Dekimpe and Skeira (2007, p.17), state that managers need metrics that can help them measure the success of all their sales channels. They add that these metrics "should be objective, based on readily available data, easy to quantify, intuitively appealing and should have diagnostic value,"

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Literature suggests that while firms should be prepared to enter new channels of distribution, Pearce and Michael (2006), they should however eliminate unprofitable channels to save scarce company resources and should find the find the best performing channels and invest in those Koksal and Ozgul (2007).

Pearce and Michael (2006), add that tough economic conditions create selling space in retail outlets that the firm would not have ordinarily accessed during boom times. By aggressively targeting new retail outlets, the organisation is thus better placed to ride out a recession.

Tracking the performance of channel metrics in a recession, avails a firm with the knowledge of what channels are profitable thus allowing them to allocate resources to these during a recession. Channel performance metrics can also inform a firm to new channels which the firm could not have exploited during boom times.

2.8. Innovation and New Product development Metrics

Cohen, Eliashberg and Ho (2000), state that for new firms, new product development is the engine for growth and profitability. Farley, Hoenig, et al. (2008), find that competition in Vietnam encourages the launching of new products, while industry growth drives less development of new products presumably because there is less pressure to compete and thus develop new products.

A recession may be an effective time to introduce new products, Pearce and Michael (2006), they further argue that during this period, competing firms may be inactive in

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launching new products and that there may be excess capacity in distribution and advertising which the firm may take advantage off. During recessions, Koksal and Ozgul (2007) cite literature that proves that recessions may be good times to invest in research and development of new products, as consumers are looking for durable goods that will save them money. A firm that measures the state of its innovation will be well placed to reap the benefits of the sales that new products deliver during a recession.

2.9. Advertising and Promotion Metrics

Evidence suggests that firms that advertise during a recession fare much better than those that do not, Koksal and Ozgul (2007) and Pearce and Michael (2006).

Pearce and Michael (2006) further suggest that marketing during recessions may be more effective as competitors, in an effort to maintain profits, slash advertising. Firms that increase or maintain their level of advertising during adverse economic conditions have been found to perform better in terms of market share, sales and income, Koksal and Ozgul (2007)

On price promotions, Pearce and Michael (2006) argue that companies resist the urge to reduce prices as this may send the message that their products are now of an inferior quality. They urge that other innovative ideas such as product bundling or use of private labels be adopted.

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In tough economic conditions, it is therefore imperative that firms have metrics that can measure the performance of the promotions, especially in relation to competitors.

2.10. Economic recessions

This paper seeks to evaluate the use of marketing metrics during recessions and examine whether the use of these metrics during a recession will lead to improved firm performance, as such, it is important to understand the effect that recessions have on consumers and firms.

As noted in the literature, firm survival depends on regular cash flows from consumers. Any disruptions of these, such as caused by recessions, will force firms to adjust their strategies in securing these cash flows. By examining the effects of recessions on consumers and firms, the author seeks to lay a foundation for the argument for use of marketing metrics during these tough economic conditions.

Pearce and Michael (2006, p.202) state that the biggest threat to firms in the business environment is a recession, which they define classically as “two or more consecutive quarters of falling Gross National Product.”

Consumers affected by recession, adapt by changing their buying habits by purchasing less goods, purchasing less expensive goods or making their own products, Ang (2001), he adds that consumers also seek price cutting promotions, more durable

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products and look for second jobs to help them survive. This is findings are also reported by Tan and Lui (2002)

Firms react to these market changes by, reducing costs, cutting production, reducing investment, amongst other measures, Koksal and Ozgul (2007), they further argue that these measures may have no impact on a companies performance if they do not increase sales.

Pearce and Michael (2006, p.206) propose a four-point plan for firms to counter recession that includes, positioning the company in multiple markets and geographies that are unaffected by the recession. The second proposal call for plans to confront declining sales by retrenching excess capacity of labour and capital while planning for the recovery.

The third proposal calls for promotion of the company's products and services as recessions offer good opportunities to market and advertise their products due to cheap rates also recessions may be a good time to introduce new products as rivals reduce innovation budgets.

The fourth tenet of their plan advises organisations to plan for the recovery, arguing, "It is management's responsibility to ensure that the company not only outlasts the recession but emerges stronger and more competitive than before." They argue for acquisitions of companies, and the development of staff.

The discussion above highlights the nature of recessions and the challenges it poses to firms, Koksal and Ozgul (2007), Pearce and Michael (2006) and Srinivasan,

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Rangaswamy and Lilien (2005), have argued for the role of marketing in a firms response to a recession. By extension, this would include a firms measures in measuring marketing performance. If marketing plays a key role is a firms efforts to survive a recession, then it's efforts to measure the performance of it initiatives will be as important.

2.11. Marketing in a recession

Srinivasan, Rangaswamy and Lilien (2005), note that there is inadequate academic research into marketing's response a recession, finding only 3 articles published in the last 20 years, a sentiment echoed by Pearce and Michael (1997, p.202), who state that "little research has been done on how to help firms survive recessions.".

Srinivasan, Rangaswamy and Lilien, (2005, p.111) find that, "some firms engage in proactive marketing, viewing the recession as an opportunity and develop marketing strategies to capitalise on the perceived opportunity

Ang (2001), citing literature, finds that businesses changed behaviour during a recession, they trimmed their product lines, offering more functional products, trimmed their advertising budgets, hired more sales force, increased promotions, offered discounts, reduced manufacturing costs amongst other measures.

Ang (2001) finds that Singaporean businesses adapted to the Asian crisis by increasing their promotional budgets, a finding confirmed by Koksal and Ozgul (2007) who found

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that a firms promotion strategy was its most important element of the marketing mix and was positvely correlated with business succes.

Koksal and Ozgul (2007), find that increasing new products during a recession has an important impact on a firms performance, they also report that during a recession a firm should resist the urge to reduce prices, which is echoed by Pearce and Michael (2006). They also find that companies should enter foreign markets which are less affected by a recession, this is also proposed by Pearce and Michael (2006) as part of their four point plan for a recession. Finally they propose that firms should enter new distribution channels and leace old unprofitable channels, as this has a positive impact on overall firm performance during an economic crisis, again this corresponds to the suggestions by Pearce and Michael (2006).

The findings suggest that during a recession, marketing activities are crucial. The literature specifically highlights, the introduction of new brands, the increasing of promotion and advertising efforts and the increasing of distribution channels while exiting unprofitable ones. To achieve all this, firms need to have measurement systems in place,so as to gauge whether their efforts are working.

2.12. Use of Marketing Metrics in a recession

The author could not find any research that addressed the use of marketing metrics during a recession, as evidenced above; there is a dearth of literature on marketing during a recession. It follows that during tough economic times, companies should

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change their marketing strategies and along with that, the way they measure marketing performance.

2.13. Conclusion and outcome of literature review

The literature review done above shows that the marketing profession is facing huge challenges in communicating the value it provides to the firm. Over the years, research has been conducted to determine how best to measure marketing efforts, the results are mixed but what is clear is the need for marketing to justify the expense.

Use of marketing metrics provides marketers with an opportunity to show how valuable they are. The arguments for marketing to justify itself by adequately measuring its performance are vocal enough when economies are booming, these calls are bound to get louder and more urgent during recessionary periods as companies look for ways to cut costs due to decreased sales and decreased availability of credit. The literature review reveals that while there has been an ongoing debate about, marketing metrics, i.e. what to measure and what models to apply, research has not adequately delved into measuring marketing during a recession. There is an even greater lack of research on measuring marketing in South Africa and no research on measuring marketing during a recession in South Africa. This study aims to begin filling that void.

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This study will thus measure:

1. The extent of use of marketing metrics in South Africa

2. The level and frequency of review of marketing metrics in South Africa

3. The changes in the importance, frequency and level of review of marketing metrics during a recession

4. The extent that changes in the importance, level and frequency of review of marketing metrics contribute to better business performance in a recession

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3. RESEARCH PROPOSITIONS

This research will attempt to investigate the use of marketing metrics in South African companies, the research aims also to investigate whether the, use and review of metrics will change during a recession and whether the change in importance, frequency and level of review of marketing metrics will increase business performance during a recession.

The literature review above has identified a clear need for the use of marketing metrics in firms. While the benefits of marketing are hardly in question, researchers have yet to agree on what metrics should be used or how to measure certain aspects of marketing.

What is clearly lacking in research on the use of marketing metrics in tough economic conditions, there is very little focus on what marketing professionals should measure during a recession.

As a result, this research will address four questions.

Research Question 1:

What is the extent of use of marketing metrics in South African companies?

South African Companies will collect about the same number of metrics as those collected by Farley, Hoenig, et al. (2008).

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Research Question 2:

To what extents are, marketing metrics collected and reviewed in South Africa?

South African Marketing professionals will collect metrics more frequently and the level of review of these metrics will be at all levels in the organisational structure

Research Question 3:

To what extent does a recession affect the use of marketing metrics?

Firms will change importance of marketing metrics and the level and frequency of review will change during a recession.

Research Question 4:

What extent does the change in review, performance, collection and importance of a firm's marketing metrics during a recession have on its business performance during recessions?

Firms that change the frequency of collection, review, importance and monitor performance of marketing metrics will perform better than firms that do not

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4. RESEARCH METHODOLOGY

The aim of this study is to identify the prevalence of use of marketing metrics in South African companies, to determine whether the collection, use and review of these metrics vary during a recession and evaluate whether changes in the use of marketing metrics during recessions will lead to better business performance.

As noted in the literature, studies to evaluate the use of marketing metrics have been conducted in Vietnam, Farley, Hoenig, et al. (2008) and in Spain, Eusebio, Andreu and Belbeze (2006), the author did not find studies that evaluated the use of marketing metrics in South Africa.

Likewise, literature review did not yield studies that evaluated the effect of recessions of marketing metrics or the effect of marketing metric use on business performance. Based on the currency of the issue, the author elected to investigate the collection, use and review of marketing metrics during a recession.

4.1. Research Design

A survey design was selected, as there were no secondary data studies on marketing metrics use in South Africa and use of marketing are not observable given the time allowed for this study. This method was also selection as two authors, Eusebio, Andréa and Believe (2006) and Farley, Hoenig, et al. (2008) had used it to investigate the use of marketing metrics in different countries.

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The author sought to establish the extent of use of marketing metrics in South African firms, the change if any in the collection, use and review of these metrics during a recession and the impact – if any – of metrics use on business performance. A survey design was also considered the most appropriate to collect data from a larger sample.

The study was quantitative in nature and descriptive in design as it aimed to describe the use of marketing metrics in South Africa and attempt to identify whether there were variations in the use of these metrics in a recessionary environment. Zikmund, (2003 p. 55) states that the "main goal of descriptive research is to describe characteristics of a population or phenomenon". The nature of primary data that were collected as well as analysis tools used in this study also called for a quantitative study of a descriptive design.

4.2. Unit of Analysis

The unit of analysis for this study were marketing professionals in South African companies. They were defined as individuals who work in a marketing function. Population

The population for this study was all marketing professionals working in South African companies, and the sampling frame were the current members of the Marketing Association of South Africa (MASA).

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Marketing professionals were considered the population with the most use of marketing metrics. This study replicates Farley, et al. (2008) in that aspect as they used marketing professionals as their sample.

4.3. Sample Size and Sampling Method

The size of this sample was estimated at approximately 140 marketing professionals. Farley, et al. (2008) collected data from a similar sample size.

A non-probability sampling technique was used. Purposive sampling was selected because the study was using marketing professionals as its unit of analysis therefore a sample that was representative of these profession was chosen Use of this technique was justified due to the availability of the sampling frame.

4.4. Data collection Tool

As stated, an online questionnaire was used to collect data. The questionnaire was based on marketing metrics used by Farley, et al. (2008), and was modified for to include questions regarding measurment of marketing metrics during a recession as well as business performance during a recession.

The questionnaire was pre-tested by amongst a small sample of marketing experts who gave advice on the structure and length of the questionnaire. Results of the pre-testing found evidence that the questionnaire as detailed by Farley, Hoenig, et al. (2008), was considered too long and would lead to high levels of non completion. The

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author was also advised to include definitions for some of the metrics in order to ensure clarity and higher response rates.

Areas in which data was collected were:

- Importance of metrics used
- Frequency of metric use: Data will be collected to gauge the frequency of use of key marketing metrics
- Frequency of review of metrics
- Level of review of metrics
- Changes in performance of metrics
- Firm performance in terms of profitability, market share and growth
- Firm characteristics in terms of age, size and number of employees
- Use of Metrics during a recession
- Biographical data about respondents. To ensure anonymity the names of respondents and their firms will not be collected.

Consent from the Marketing Association of South Africa was obtained and an email with a brief introduction and description of the study was sent out to 140 members, with a link to the website hosting the survey. The Marketing Association of South

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Africa, in order to secure better response rates, sent out the survey. A copy of the survey used is included in the appendices.

4.5. Data Analysis

The survey was conducted through an online questionnaire hosted on surveymonkey.com, this method was selected as it allows the authors to reach a large sample rapidly Zikmund (2003).

Data was collected from the first week of September. Reminders were sent by every week after that. The survey was closed on 16 October. Out of 140 emails sent out to potential respondents, 44 surveys were filled in giving a response rate of 31%. Out of the 44 responses, 33 were completely filled out, meaning 11 had unanswered questions, and this gave a valid response rate of 23%.

The missing data was present in 25% of all the responses as a result pair wise deletion was used in order to preserve as many data points as possible.

Descriptive statistical tests were performed to determine the prevalence of use of marketing metrics. The tests determined the mean, mode and standard deviation of the data collected.

One-tailed t-tests were conducted to determine the significance of test results at set confidence levels as well as binomial and Kendall's tau b and c for non parametric relationships. Chi square tests were conducted to determine differences in reporting levels of metrics as well as changes in reporting level of metrics.

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ANOVA simple regression and stepwise regression were used to determine inferences and the co-relation between use of metrics in a recession and business performance. Cronbach's alpha tests were also conducted to determine the reliability of the scales for business performance.

Binomial tests were conducted to determine the percentage of respondents who changed the level of metrics review and frequency of metric collection during a recession.

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5. RESULTS

5.1. Sample Descriptions

Data was collected using a web-based survey hosted on Survey Monkey, questionnaires were sent to 140 recipients, by the Marketing Association of South Africa to their members. Out of the responses sent, 44 were received, of which only 33 were completed. This represented a response rate of 23.6%.

Thirty nine percent of the respondents worked for organisations with between zero and 500 employees, 19 respondents representing 43 % of the respondents skipped the question with the remainder reporting that they worked for larger companies with 500 to 10,000 employees.

Forty six percent of the respondents have been marketing professionals for over 10 years. Twenty-seven percent of the respondents skipped the question and 11% reported having worked in the marketing profession for five – ten years.

Females represented 32% of the respondents with males having 41%; the remainder of the respondents skipped the question. There was insufficient data to determine the industries that the respondents worked in.

A summary of the sample characteristics are provided in Table 2 below

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Table 2: Summary of sample characteristics

		Count	Column N %
How many people are employed in your organisation?	Not provided	19	43.2%
	0-500 Employees	17	38.6%
	500-1000 Employees	1	2.3%
	1000-5000 Employees	2	4.5%
	5000-10000 Employees	2	4.5%
	Over 10000 employees	3	6.8%
How many years have you worked in the marketing field?	Not provided	12	27.3%
	Less than 1 year	2	4.5%
	1 - 3 years	3	6.8%
	3-5 years	2	4.5%
	5-10 years	5	11.4%
	Over 10 years	20	45.5%
Gender	Not stated	14	31.8%
	Female	12	27.3%
	Male	18	40.9%

Table 3: Descriptive Statistics of marketing metrics collection

Descriptive Statistics on marketing metric collection

		Number Collected	Average Frequency Collected	Highest Frequency Collected
N	Valid	44	44	44
	Missing	0	0	0
Mean		12.0000	3.0414	5.0909
Median		13.5000	2.9706	5.0000
Std. Deviation		4.85607	1.17357	1.23549
Range		17.00	4.24	5.00
Minimum		.00	1.00	1.00
Maximum		17.00	5.24	6.00

There is a large standard deviation around collection of metrics, Table 3 above shows 68% of the respondents collecting between 7 and 17 metrics. Data is collected, on average, every 6 months (mean = 3). The most frequent reporters do so monthly (highest frequency = 5).

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Table 4: The breakdown of collection of metrics by years worked and gender

.Number in sample:	How many years have you worked in the marketing field?						Gender		
	Not provided	Less than 1 year	1 - 3 years	3-5 years	5-10 years	Over 10 years	Not stated	Female	Male
	12	2	3	2	5	20	14	12	18
Frequency: Success of new products	3.06	2.33	4.33	3.83	3.53	3.58	2.98	3.36	3.85
Frequency: Consumer attitudes	2.64	3.00	5.00	3.00	2.93	2.80	2.52	2.92	3.28
Frequency: Branding activities	2.04	3.00	5.33	2.75	3.60	2.85	2.14	3.42	3.11
Frequency: Channel attitudes	2.50	3.13	5.25	3.50	2.90	3.05	2.48	3.17	3.43
Frequency: Promotion	2.58	2.90	4.00	2.60	3.08	2.86	2.51	2.63	3.32
Trend: Success of new products	2.78	3.67	3.56	2.33	2.33	3.12	2.74	2.64	3.33
Trend: Consumer attitudes	2.89	4.00	3.00	2.33	3.47	3.23	2.76	2.92	3.59
Trend: Branding activities	2.88	3.75	3.33	2.50	3.50	3.30	2.82	3.04	3.58
Trend: Channel attitudes	2.79	3.63	3.83	2.75	3.15	3.35	2.71	3.15	3.60
Trend: Promotion	2.82	4.00	3.67	2.00	2.88	3.26	2.83	2.80	3.51
Importance: Success of new products	3.00	3.17	3.78	4.17	3.67	3.33	2.93	3.33	3.67
Importance: Consumer attitudes	3.00	4.00	4.89	4.00	4.00	3.83	2.95	3.78	4.26
Importance: Branding activities	3.00	3.75	4.50	3.75	4.10	3.88	2.96	3.71	4.25
Importance: Channel attitudes	3.00	4.00	4.42	4.00	3.95	3.68	2.96	3.94	3.88
Importance: Promotion	3.00	3.60	4.80	4.50	3.56	3.80	2.94	4.00	3.96

Table 4 above shows, that majority of the metrics, were collected by employees with 1-3 years of marketing experience. Marketers with more experience, five to over 10 years collected metrics on consumer attitudes and brand performance.

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5.2. Research Question 1

The extent of marketing metric use in South Africa was evaluated by conducting two tests*:*

1. The sample was tested for the number of organisations that collect any metrics at all, this test was done to determine the extent to which organisation used marketing metrics
2. The sample was tested for the total number of metrics collected; the test was performed to determine the number of marketing metrics that were being collected by South African firms. The two statistics would provide an understanding of the prevalence of marketing metrics in South Africa.

The first instance was assessed through providing a score of one to all organisations who reported collecting any of the metrics at least once a year. A review of Table 5 below reveals that all but one organisation collected at least one metric once a year. As 98% of the sample collected at least one metric, a statistical test was redundant as there was little deviation in the data.

Table 5: Firms that collect any marketing metric at least once a year

Firms who collect at least one metric in a year

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Collect no metrics	1	2.3	2.3	2.3
	Collect any metrics	43	97.7	97.7	100.0
	Total	44	100.0	100.0	

The second instance was evaluated in terms of number of metrics collected at least once a year. A variable was created whereby all metrics collected once a year or

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more were scored as '1'; the overall score was then summed across all metrics. The results are depicted in Table 6 below demonstrate that 68% of the sample collect more than 10 metrics once a year.

Table 6: Aggregate of all marketing metrics collected
Number of marketing metrics collected

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	.00	1	2.3	2.3	2.3
	1.00	1	2.3	2.3	4.5
	2.00	1	2.3	2.3	6.8
	5.00	1	2.3	2.3	9.1
	6.00	2	4.5	4.5	13.6
	7.00	3	6.8	6.8	20.5
	8.00	1	2.3	2.3	22.7
	9.00	4	9.1	9.1	31.8
	10.00	3	6.8	6.8	38.6
	11.00	2	4.5	4.5	43.2
	12.00	1	2.3	2.3	45.5
	13.00	2	4.5	4.5	50.0
	14.00	2	4.5	4.5	54.5
	15.00	6	13.6	13.6	68.2
	16.00	3	6.8	6.8	75.0
	17.00	11	25.0	25.0	100.0
	Total	44	100.0	100.0	

In order to ascertain whether the South African sample collects data more or less frequently than other emerging markets, a one-sample t-test was run. The test value was derived from Farley, Hoenig, et al. (2008), as they reported that 68% of their Vietnamese sample collected any of a range of metrics as described in the Table 7 below.

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Table 7: Marketing metrics categories used by Farley, Hoenig, et al. (2008, p.183)

Marketing metrics Categories	% of at least one metrics used in the category
New Products and Services	85%
Customer Metrics	62%
Branding Metrics	51%
Channel Metrics	65%
Advertising and Promotion Metrics	81%

As the current study assessed 17 metrics, 68% of this number is 11. The resultant test was not significant, with p = 0.179 and T = 1.366. Hence, there is evidence that South African marketers collect approximately the same number of metrics, as do the firms in Vietnam.

Table 8: Marketing metrics collected once

One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
Number Collected	44	12.0000	4.85607	.73208

Table 9: Results of one tailed sample t-test of marketing metrics collected at least once

One-Sample Test

	Test Value = 11					
					95% Confidence Interval of the Difference	
	t	df	Sig. (2-tailed)	Mean Difference	Lower	Upper
Number Collected	1.366	43	.179	1.00000	-.4764	2.4764

To conclude: there is evidence that most South African marketers belonging to an official South African marketing body collect at least one marketing metric once a year. Overall, the number of marketing metrics collected is on par with other nations.

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There is no significance difference between collection of metric in South Africa and Vietnam.

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5.3. Research Question 2:

To what extents are, marketing metrics collected and reviewed in South Africa?

This research question was assessed through an evaluation of the frequency of metric collection and the level in the organisation to which the results were reported.

5.3.1. Frequency of metric collection

The frequency of metric collection was measured by collecting the average frequency of marketing metrics collected. The sample was analysed for two frequencies: these were whether marketing metrics were collected monthly (test value 5) or quarterly (test value 4).

One-tailed t-tests were run to determine whether the results were significant.

Table 10: Descriptive Statistics of marketing metrics collection

Descriptive Statistics on marketing metric collection

		Number Collected	Average Frequency Collected	Highest Frequency Collected
N	Valid	44	44	44
	Missing	0	0	0
Mean		12.0000	3.0414	5.0909
Median		13.5000	2.9706	5.0000
Std. Deviation		4.85607	1.17357	1.23549
Range		17.00	4.24	5.00
Minimum		.00	1.00	1.00
Maximum		17.00	5.24	6.00

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Table 11: Descriptive statistics of frequency of marketing metrics collected

		Average Frequency Collected	Highest Frequency Collected
		Mean	Mean
How many years have you worked in the marketing field?	Not provided	2.60	4.83
	Less than 1 year	2.85	5.50
	1 - 3 years	4.69	5.33
	3-5 years	3.15	5.50
	5-10 years	3.18	5.20
	Over 10 years	3.04	5.10
How many people are employed in your organisation?	Not provided	2.66	4.74
	0-500 Employees	3.24	5.47
	500-1000 Employees	1.88	4.00
	1000-5000 Employees	2.85	5.00
	5000-10000 Employees	4.50	5.50
	Over 10000 employees	3.86	5.33
Gender	Not stated	2.56	4.79
	Female	3.06	5.00
	Male	3.40	5.39

Table 12: Average frequency of marketing metrics collected

One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
Average Frequency Collected	44	3.0414	1.17357	.17692

Table 13: Results of one tailed t-test on frequency of metrics collected monthly

One-Sample Test

	Test Value = 5					
					95% Confidence Interval of the Difference	
	t	df	Sig. (2-tailed)	Mean Difference	Lower	Upper
Average Frequency Collected	-11.070	43	.000	-1.95856	-2.3154	-1.6018

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Table 14: Average frequency of marketing metrics collected

One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
Average Frequency Collected	44	3.0414	1.17357	.17692

Table 15: Results of one tailed t-test on frequency of metrics collected quarterly

One-Sample Test

	Test Value = 4					
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Average Frequency Collected	-5.418	43	.000	-.95856	-1.3154	-.6018

The results show that the sample reported marketing metrics less frequently than quarterly and monthly. This is significant at the 0.00 level. Thus, the null hypothesis that South African firms collect marketing metrics at either quarterly or monthly intervals is rejected.

5.3.2. Level of metric review

Respondents were asked the highest level to which metrics collected were reviewed. Generally, larger organisations Table 16 were more likely to report at a higher level. A Chi-Square test was run to ascertain if there were any discernable differences between reporting levels.

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		What is the highest level of review of the metrics collected?									
		No review		Junior Marketing Managers		Senior Marketing Management		Senior Executive Management		Board of Directors	
		Count	Column N %	Count	Column N %	Count	Column N %	Count	Column N %	Count	Column N %
How many years have you worked in the marketing field?	Not provided	1	33.3%	1	100.0%	2	50.0%	4	22.2%	4	22.2%
	Less than 1 year	0	.0%	0	.0%	0	.0%	1	5.6%	1	5.6%
	1 - 3 years	0	.0%	0	.0%	1	25.0%	2	11.1%	0	.0%
	3-5 years	0	.0%	0	.0%	1	25.0%	0	.0%	1	5.6%
	5-10 years	0	.0%	0	.0%	0	.0%	3	16.7%	2	11.1%
	Over 10 years	2	66.7%	0	.0%	0	.0%	8	44.4%	10	55.6%
How many people are employed in your organisation?	Not provided	2	66.7%	1	100.0%	2	50.0%	6	33.3%	8	44.4%
	0-500 Employees	0	.0%	0	.0%	2	50.0%	5	27.8%	10	55.6%
	500-1000 Employees	1	33.3%	0	.0%	0	.0%	0	.0%	0	.0%
	1000-5000 Employees	0	.0%	0	.0%	0	.0%	2	11.1%	0	.0%
	5000-10000 Employees	0	.0%	0	.0%	0	.0%	2	11.1%	0	.0%
	Over 10000 employees	0	.0%	0	.0%	0	.0%	3	16.7%	0	.0%
Gender	Not stated	2	66.7%	1	100.0%	2	50.0%	4	22.2%	5	27.8%
	Female	1	33.3%	0	.0%	1	25.0%	6	33.3%	4	22.2%
	Male	0	.0%	0	.0%	1	25.0%	8	44.4%	9	50.0%

Table 16: Descriptive statistics of collection of marketing metrics by management level and age

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Table 17: Cross tabulation of reported and expected results of review of marketing metrics

at is the highest level of review of the metrics collecte

	Observed N	Expected N	Residual
No review	3	8.8	-5.8
Junior Marketing Managers	1	8.8	-7.8
Senior Marketing Management	4	8.8	-4.8
Senior Executive Management	18	8.8	9.2
Board of Directors	18	8.8	9.2
Total	44		

Table 18: Chi-Square results on the level of reporting of marketing metrics

Test Statistics

	What is the highest level of review of the metrics collected?
Chi-Square[a]	32.591
df	4
Asymp. Sig.	.000

a. 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 8.8.

The null hypothesis was that South African organisations report marketing metrics equally across levels of seniority. The chi-squared revealed that there are significant amounts of respondents reporting marketing metrics to the highest two levels, these were Senior Executive Management and the Board of Directors. The Chi-Square is 32.5 and p = 0.000.

The tests indicate marketing metrics are reviewed by higher levels of the organisation i.e. at Senior Executive Management and at Board levels; however it does not appear

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that marketing metrics are collected frequently as proposed, as both one-sample t-tests for quarterly and monthly review were significantly lower than these periods.

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5.4. Research Question 3:

To what extent does a recession affect the use of marketing metrics?

The questions that covered this research question asked if the organisation had changed its metrics collection since the recession to a different frequency. Respondents who reported a change in frequency were coded as such. Eight such respondents were found see Table 19 below

Table 19: Percentage of respondents reporting increase of marketing metrics during a recession

Increased Metric Collection in a Recession

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No increase in metric collection	36	81.8	81.8	81.8
	Increased metric collection	8	18.2	18.2	100.0
	Total	44	100.0	100.0	

Table 20: Frequency of marketing metrics collection before and during a recession

		How often does your organization review the metrics collected?						Total
		Never	Once a year	Every 6 Months	Quarterly	Monthly	Weekly	Never
Has your organisation changed the frequency of review of metrics to?	Never	4	6	4	2	5	1	22
	Once a year	0	1	0	0	1	0	2
	Every 6 Months	0	1	3	0	2	0	6
	Quarterly	0	0	2	5	1	0	8
	Monthly	0	1	1	1	1	0	4
	Weekly	0	0	1	0	1	0	2
Total		4	9	11	8	11	1	44

Classified - Internal use

The data was investigated as follows:

a) An determination if significant numbers of respondents either changed or did not change their level of metrics reporting due to the recession

b) An investigation if the level of reporting before the recession influenced the change in reporting level

c) A determination if the level of reporting changed after the recession

5.4.1. A determination if significant numbers of respondents either changed or did not change their level of metrics reporting due to the recession:

A binomial test was run in order to ascertain the probability associated with eight of the 44 firms changing their metrics in a recession. The results below reveal that a significantly low number of firms do so as p = 0.000

Table 21: Descriptive statistics of increased collection of metrics during a recession

Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum
Increased Metric Collection in a Recession	44	1.1818	.39015	1.00	2.00

Classified - Internal use

Table 22: Binomial test results of increased collection of marketing metrics during a recession

Binomial Test

		Category	N	Observed Prop.	Test Prop.	Asymp. Sig. (2-tailed)
Increased Metric Collection in a Recession	Group 1	No increase in metric collection	36	.82	.50	.000[a]
	Group 2	Increased metric collection	8	.18		
	Total		44	1.00		

a. Based on Z Approximation.

The binomial test results indicate that a significant number of respondents i.e. 82% did not increase collection of marketing metrics. Based on these results, the probability that firms will change their metrics during a recession is significantly low for us to reject the hypothesis and thus conclude that South African firms do not change the collection of marketing metrics during a recession

5.4.2. An investigation if the level of reporting before the recession influenced the change in reporting level

In order to explore the relationship between metrics change and metrics reported an assessment was done between highest levels of metric reporting before the recession and if there was a change in level of reporting post the recession.

Classified - Internal use

ɔur organisation changed the level of review of metrics to? * What is the highest level of review of the metrics colle
Crosstabulation

Count

		What is the highest level of review of the metrics collected?					
		No review	Junior Marketing Managers	Senior Marketing Management	Senior Executive Management	Board of Directors	Total
HAs your organisation changed the level of review of metrics to?	No review	3	1	3	7	6	20
	Senior Marketing Management	0	0	1	1	2	4
	Senior Executive Management	0	0	0	8	2	10
	Board of Directors	0	0	0	2	8	10
Total		3	1	4	18	18	44

Table 23: Cross tabulation of level of review of metrics before and during a recession

Classified - Internal use

Table 24: Chi-Square results on the change in level of review of marketing metrics during a recession

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	19.189[a]	12	.084
Likelihood Ratio	20.984	12	.051
Linear-by-Linear Association	7.670	1	.006
N of Valid Cases	44		

a. 18 cells (90.0%) have expected count less than 5. The minimum expected count is .09.

Table 25: Symmetric results on the change in level of reporting of marketing metrics during a recession

Symmetric Measures

		Value	Asymp. Std. Error[a]	Approx. T[b]	Approx. Sig.
Ordinal by Ordinal	Kendall's tau-b	.372	.116	3.058	.002
	Kendall's tau-c	.331	.108	3.058	.002
	Gamma	.538	.154	3.058	.002
N of Valid Cases		44			

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

The chi-square tests reveal that the sample size was too small resulting in too many categories having insufficient data, that is 90% of the results have a count less than 5.

To obtain an estimate of the association between level pre and post recession, Kendall's Tau b and c and the gamma tests were run; such tests accommodate the small sample size.

These found a moderately positive correlation between the the level of reporting of marketing metrics before a recession and the level of reporting during a recession ($p = 0.002$).

Classified - Internal use

This implies that the level of reporting of marketing metrics before a recession influences the level of reporting during a recession.

5.4.3. A determination if the level of reporting changed during the recession:

Change in level of reporting was determined by allocating a '2' to all respondents who reported a change in level. A binomial test was run to determine the probability of the result.

Table 26: Descriptive statistics on the change in level of reporting of marketing metrics during a recession

Changed_Level

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	42	95.5	95.5	95.5
	2.00	2	4.5	4.5	100.0
	Total	44	100.0	100.0	

Table 27: Descriptive statistics on the change in level of reporting of marketing metrics during a recession

Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum
Changed_Level	44	1.0455	.21071	1.00	2.00

Table 28: Binomial test results of change in level of reporting of metrics during a recession

Classified - Internal use

Binomial Test

		Category	N	Observed Prop.	Test Prop.	Asymp. Sig. (2-tailed)
Changed_Level	Group 1	No change in level reported	42	.95	.50	.000[a]
	Group 2	Change in level reported	2	.05		
	Total		44	1.00		

a. Based on Z Approximation.

The binomial tests reject the the hypothesis that there was an increase in the level of review of marketing metrics by South African firms during a recession as 95% of SA firms did not change their level at all.

The various test results run suggest that there is no change in the use, collection and review of marketing metrics in South African firms.

5.4.4. Conclusion

The binomial test results indicate that a significant number of respondents that is 82% did not increase collection of marketing metrics. Based on these results, the probability that firms will change their metrics during a recession is significantly low for us to reject the hypothesis and thus conclude that South African firms do not change the level of collection of marketing metrics during a recession

The chi-square test reveal that the sample size was too small resulting in too many categories having insufficient data. Ninety percent of the results have a count less than five. Kendall's Tau b and c and the gamma tests were run due to the small

Classified - Internal use

sample size. These found a moderately positive correlation between the the level of reporting of marketing metrics before a recession and the level of reporting during a recession.

This implies that the level of reporting of marketing metrics before a recession influences the level of reporting during a recession The binomial tests reject the the hypothesis that there was an increase in the level of review of marketing metrics by South African firms during a recession

The various test results run suggest that there is no change in the use, collection and review of marketing metrics in South African firms.

Thus, we fail to reject the null hypothesis that there is no change in firm collection, review and use during a recession.

Classified - Internal use

5.5. Research question 4:

What extent does the change in review, performance, collection and importance of a firm's marketing metrics during a recession has on its business performance during recessions?

Use was measured as the firm's collection, and review of marketing metrics, Collection was measured as a firm's proactive endeavour to source and store in an orderly fashion marketing metrics. Review was measured as a firm's proactive method to analyse, interpret and take action on marketing metrics. Business performance was measured as a firm's performance in sales, profit, and market share. The combination of these variables into a single scale was justified as a Cronbach's alpha was run and an acceptable $\alpha = 0.84$ was found

Table 29: Cronbach's alpha results on the validity of the aggregated measure business performance

Reliability Statistics

Cronbach's Alpha	N of Items
.843	6

This research question was investigated on the following fronts:

a) Correlation between key variables of frequency of metrics collection and the created variable of business success

Classified - Internal use

b) Correlation between key variables of performance on metrics collected and the created variable of business success

c) Correlation between the importance of metrics collected and the created variable of business success

d) An assessment if Profits is related to performance, importance and frequency of metric collection during a recession

e) An assessment if Profitability relative to industry is related to performance, importance and frequency of metric collection during a recession

f) An assessment if Sales growth is related to performance, importance and frequency of metric collection during a recession

g) An assessment if market share in the most important market is related to performance, importance and frequency of metric collection during a recession

h) An assessment if market share relative to industry is related to performance, importance and frequency of metric collection during a recession

i) An assessment if market share across markets is related to performance, importance and frequency of metric collection during a recession

j) A stepwise regression where all potential explanatory variables were entered to determine their relative influence on business success

   i. Overall business success

   ii. Profitability

   iii. Profitability relative to industry

Classified - Internal use

iv. Sales growth

v. Market Share in most important market

vi. Market Share relative to industry

vii. Market share across markets

5.5.1. Correlation between key variables of frequency of metrics collected and the created variable of business success

Table 30 gives the correlation coefficients for the frequency of collection of metrics and business success are given below; the results found that business performance is significantly correlated with the frequency of collection of channel metrics.

Classified - Internal use

		Business success
Frequency: Success of new products	Pearson Correlation	.258
	Sig. (2-tailed)	.090
	N	44
Frequency: Consumer attitudes	Pearson Correlation	.188
	Sig. (2-tailed)	.221
	N	44
Frequency: Branding activities	Pearson Correlation	.063
	Sig. (2-tailed)	.685
	N	44
Frequency: Channel attitudes	Pearson Correlation	.352*
	Sig. (2-tailed)	.019
	N	44
Frequency: Promotion	Pearson Correlation	.220
	Sig. (2-tailed)	.152
	N	44

Table 30 : Correlation coefficients for the frequency of collection of metrics and business success

Hence, the key correlate between metrics and business success was frequency of channel attitude measurement, with p=0.019 which is significant

5.5.2. Correlation between key variables of performance on metrics collected and the created variable of business success

Table 31, highlights the correlation coefficients of performance of marketing metrics during a recession with overall business performance. The data shows that business success was significantly correlated with metrics that measured branding, channel, success of new products and, the correlation was strongest with promotion metrics.

The result was significant with performance of innovation metrics p=0.048, performance of branding activities p=0.024, performance of channel attitudes p=0.027 and performance of promotion metrics p=0.000.

		Business success
Performance: Success of new products	Pearson Correlation	.300*
	Sig. (2-tailed)	.048
	N	44
Performance: Consumer attitudes	Pearson Correlation	.148
	Sig. (2-tailed)	.339
	N	44
Performance: Branding activities	Pearson Correlation	.339*

Classified - Internal use

	Sig. (2-tailed)	.024
	N	44
Performance: Channel attitudes	Pearson Correlation	.334*
	Sig. (2-tailed)	.027
	N	44
Performance: Promotion	Pearson Correlation	.507**
	Sig. (2-tailed)	.000
	N	44

Table 31: Correlation coefficients for the performance metrics and business success

5.5.3. Correlation between the importance of metrics collected and the created variable of business success

		Business success
Importance: Success of new products	Pearson Correlation	.181
	Sig. (2-tailed)	.239
	N	44
Importance: Consumer attitudes	Pearson Correlation	.013
	Sig. (2-tailed)	.934

Classified - Internal use

	N	44
Importance: Branding activities	Pearson Correlation	.190
	Sig. (2-tailed)	.217
	N	44
Importance: Channel attitudes	Pearson Correlation	.154
	Sig. (2-tailed)	.317
	N	44
Importance: Promotion	Pearson Correlation	.171
	Sig. (2-tailed)	.268
	N	44

Table 32: Correlation coefficients for change in importance of metrics and business success

Table 32 above measured the correlation between business performance and the increase in importance of marketing metrics during a recession, the results found no significant correlation,

To further explore possible relationships between business success and the various metrics, the respondents were divided into two groups with respect to each of the success measures:

- Profits

Classified - Internal use

- Profit relative to industry
- Sales growth relative to industry
- Market share in the most important market
- Share across markets
- Share relative to industry

The one group consists of respondents who said that the organisation performed on or below average, the other group is the respondents who said the organisation performed above average. The two groups were then compared with respect to the responses to the metrics.

5.5.4. An assessment if profitability is related to performance, importance and frequency of metric collection during a recession

Table 33: Descriptive statistics of groups reporting profits and variables of marketing metrics

Descriptive

	Profits	N	Mean	Std. Deviation
Frequency of review	On or below average	34	2.8927	1.17820
	Above average	10	3.5471	1.05957

Classified - Internal use

	Total	44	3.0414	1.17357
Trend (Performance)	On or below average	34	3.0813	.62354
	Above average	10	3.2471	.83733
	Total	44	3.1190	.67087
Importance	On or below average	34	3.5519	.74181
	Above average	10	3.7824	.67983
	Total	44	3.6043	.72704

Table34: Results of ANOVA groups reporting profits and variables of marketing metrics

ANOVA

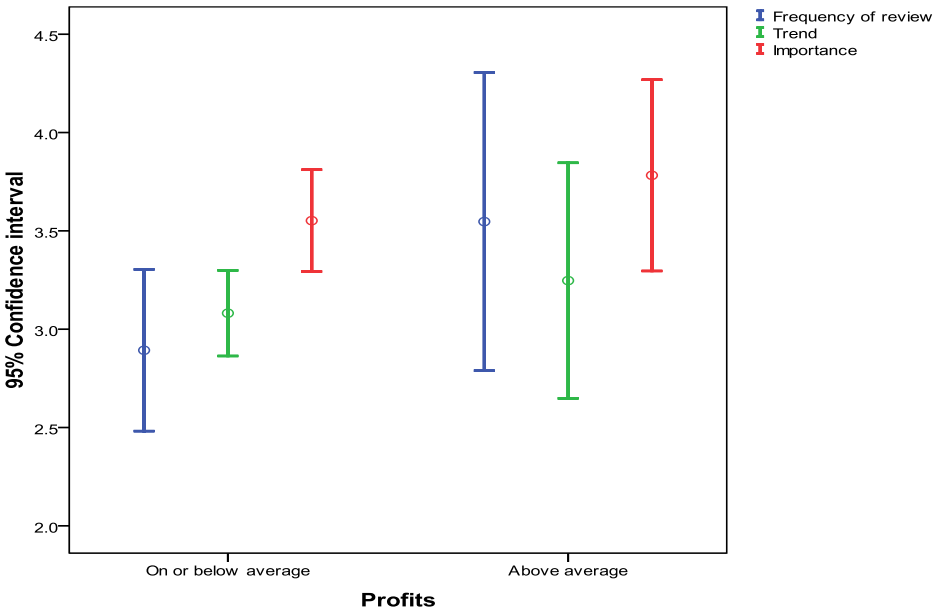
		Sum of Squares	df	Mean Square	F	Sig.
Frequency of review	Between Groups	3.308	1	3.308	2.485	.122
	Within Groups	55.914	42	1.331		
	Total	59.222	43			
Trend (Performance)	Between Groups	.212	1	.212	.466	.499

Classified - Internal use

	Within Groups	19.141	42	.456		
	Total	19.353	43			
Importance	Between Groups	.410	1	.410	.772	.385
	Within Groups	22.319	42	.531		
	Total	22.729	43			

There is no significant difference of means, between groups who reported above average and below average profits. The error bar chart shows, however, that with respect to each of metric indices, the group who reported above average profits had also scored higher on the frequency, performance and importance measures.

Chart 1: Error chart: Profits



Classified - Internal use

5.5.5. An assessment if profitability relative to industry is related to frequency of metric collection

Table 35: Descriptive statistics of groups reporting profit relative to the industry and variables of marketing metrics

Descriptive

	Profit relative to the industry	N	Mean	Std. Deviation
Frequency of review	On or below average	30	2.8882	1.23344
	Above average	14	3.3697	.99571
	Total	44	3.0414	1.17357
Trend Performance)	On or below average	30	3.0490	.64124
	Above average	14	3.2689	.73206
	Total	44	3.1190	.67087
Importance	On or below average	30	3.5000	.74547
	Above average	14	3.8277	.65563
	Total	44	3.6043	.72704

Classified - Internal use

Table 36: Results of ANOVA groups reporting profitability relative to the industry and variables of marketing metrics

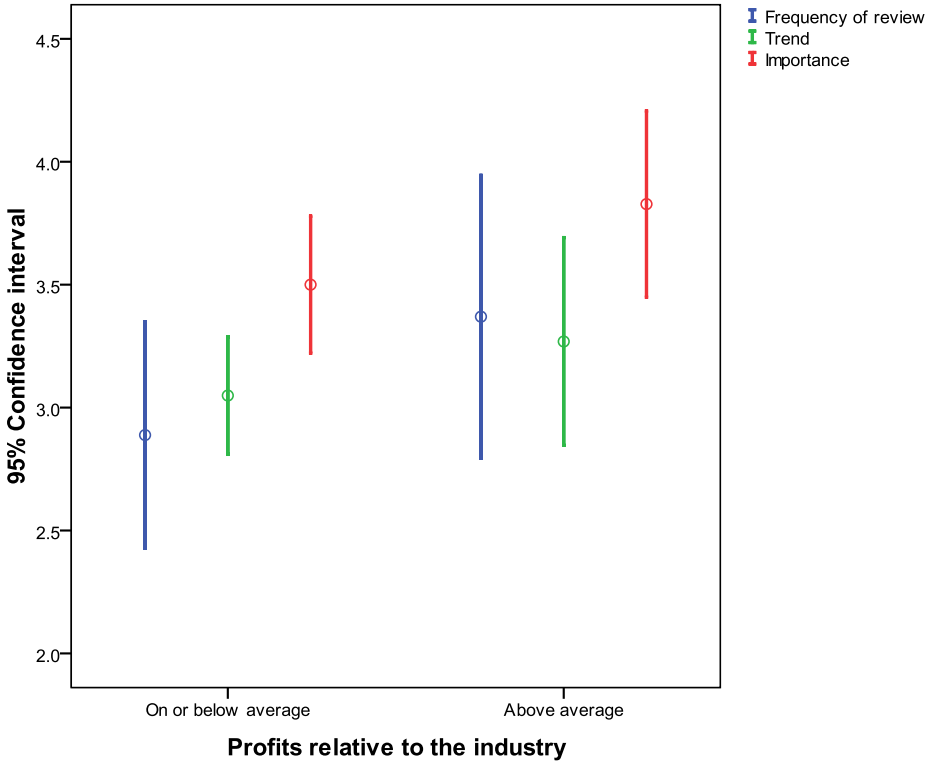
ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Frequency of review	Between Groups	2.213	1	2.213	1.630	.209
	Within Groups	57.009	42	1.357		
	Total	59.222	43			
Trend (Performance)	Between Groups	.462	1	.462	1.026	.317
	Within Groups	18.891	42	.450		
	Total	19.353	43			
Importance	Between Groups	1.025	1	1.025	1.984	.166
	Within Groups	21.704	42	.517		
	Total	22.729	43			

The means are not significantly different. The error bar chart shows, however, that with respect to each of metric indices, the group who reported above average profits relative to the industry had also scored higher on the frequency, performance and importance measures

Classified - Internal use

Chart 2: Error chart: Profitability relative to industry



5.5.6. An assessment if Sales growth is related to performance, importance and frequency of metric collection during a recession

Table 37: Descriptive statistics of groups reporting sales growth to the industry and variables of marketing metrics

Descriptive

	Sales growth relative to the industry	N	Mean	Std. Deviation
Frequency of review	On or below average	34	2.7958	1.13808

Classified - Internal use

	Above average	10	3.8765	.91021
	Total	44	3.0414	1.17357
Trend (Performance)	On or below average	34	2.9879	.62081
	Above average	10	3.5647	.67195
	Total	44	3.1190	.67087
Importance	On or below average	34	3.4948	.68906
	Above average	10	3.9765	.76506
	Total	44	3.6043	.72704

Table 38: Results of ANOVA groups reporting sales growth relative to the industry and variables of marketing metrics

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Frequency of review	Between Groups	9.023	1	9.023	7.550	**.009**

Classified - Internal use

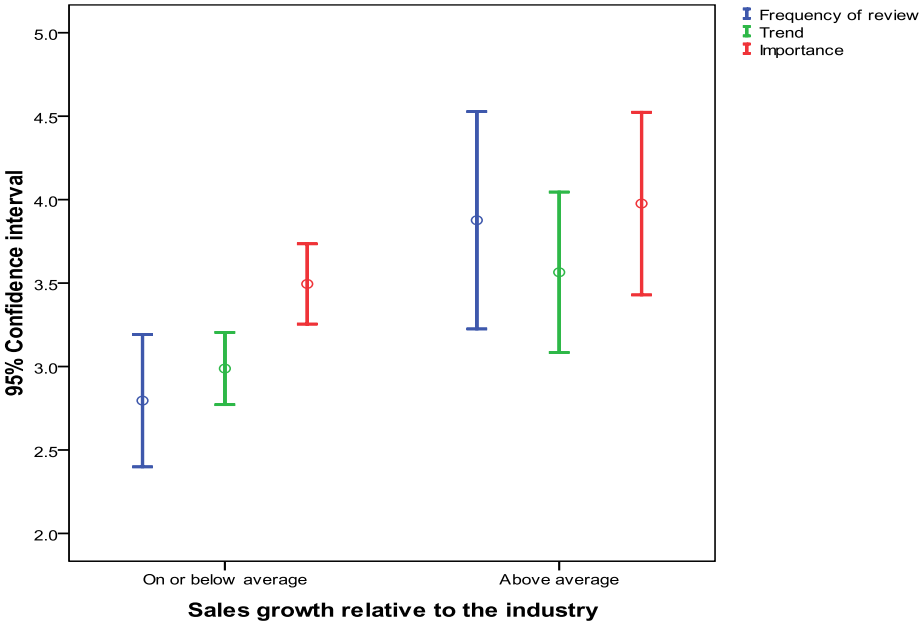
	Within Groups	50.199	42	1.195		
	Total	59.222	43			
Trend (Performance)	Between Groups	2.571	1	2.571	6.434	**.015**
	Within Groups	16.782	42	.400		
	Total	19.353	43			
Importance	Between Groups	1.793	1	1.793	3.596	**.065**
	Within Groups	20.936	42	.498		
	Total	22.729	43			

With P-values of 0.009, 0.015 and 0.065, results show a significant difference between the means of the indices between the group who said that the sales growth is below average and those who said it is above average. These differences were reported on all the variables.

The error bar chart shows that with respect to each of metric indices, the group who reported above average sales growth rates relative to the industry had also scored higher on the frequency, performance and importance of marketing metrics.

Classified - Internal use

Chart 3: Error chart: sales growth relative to industry



5.5.7. An assessment if market share in the most important market is related to performance, importance and frequency of metric collection during a recession

Table 39: Descriptive statistics of groups reporting market share in most important market and variables of marketing metrics

Descriptive

	Market share in the most important market	N	Mean	Std. Deviation
Frequency of review	On or below average	31	2.8899	1.23797
	Above average	13	3.4027	.95028

Classified - Internal use

	Total	44	3.0414	1.17357
Trend (Performance)	On or below average	31	2.9583	.62828
	Above average	13	3.5023	.63246
	Total	44	3.1190	.67087
Importance	On or below average	31	3.4687	.71263
	Above average	13	3.9276	.68100
	Total	44	3.6043	.72704

Table 40: Results of ANOVA groups reporting market share in most important market and variables of marketing metrics

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Frequency of review	Between Groups	2.408	1	2.408	1.780	.189
	Within Groups	56.814	42	1.353		
	Total	59.222	43			

Classified - Internal use

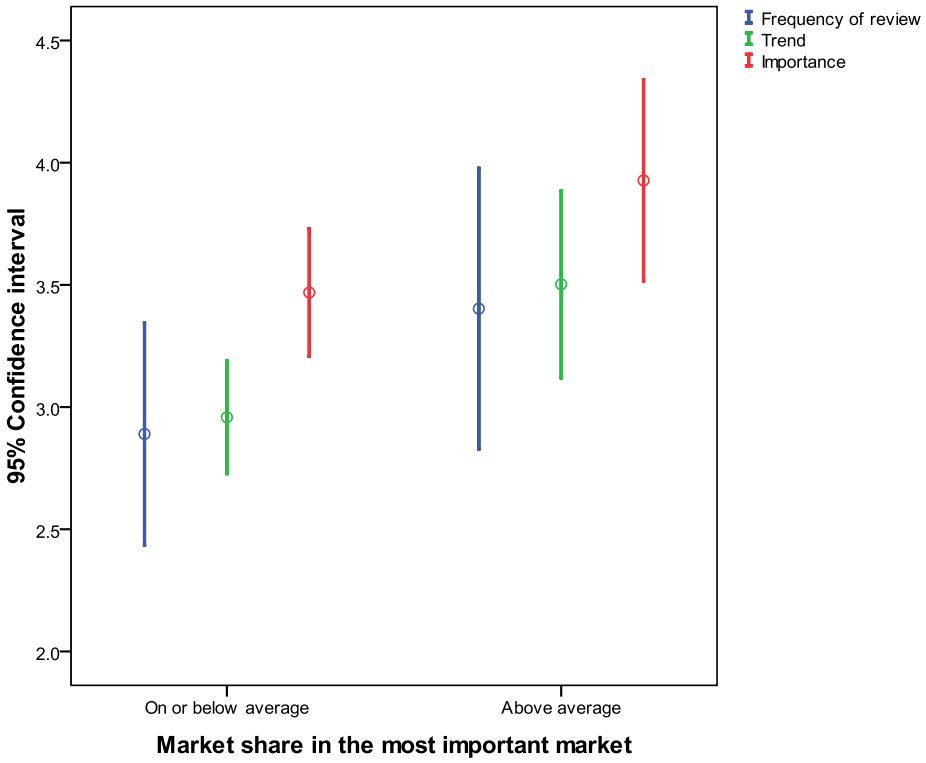
Trend (Performance)	Between Groups	2.711	1	2.711	6.841	**.012**
	Within Groups	16.642	42	.396		
	Total	19.353	43			
Importance	Between Groups	1.929	1	1.929	3.895	.055
	Within Groups	20.800	42	.495		
	Total	22.729	43			

The P-value of 0.012 indicates a significant difference between means of the metric indices between respondents reported market share in the most important market is above average and those who said it was below average. The result was significant for the performance of marketing metrics during a recession.

The error bar chart shows that with respect to each of metric indices, the group who reported above average market share in the most important market had also scored higher on the performance of marketing metrics.

Classified - Internal use

Chart 4: Error chart: market share in most important market



5.5.8. An assessment if market share across markets is related to performance, importance and frequency of metric collection during a recession

Table 41: Descriptive statistics of groups reporting market share across markets and variables of marketing metrics

Descriptive

	Share across markets	N	Mean	Std. Deviation
Frequency of review	On or below average	33	2.7772	1.15764

Classified - Internal use

	Above average	11	3.8342	.84379
	Total	44	3.0414	1.17357
Trend (Performance)	On or below average	33	3.0214	.67820
	Above average	11	3.4118	.58113
	Total	44	3.1190	.67087
Importance	On or below average	33	3.4688	.67158
	Above average	11	4.0107	.76643
	Total	44	3.6043	.72704

Table 42: Results of ANOVA groups reporting market share across markets and variables of marketing metric

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Frequency of review	Between Groups	9.218	1	9.218	7.743	.008

Classified - Internal use

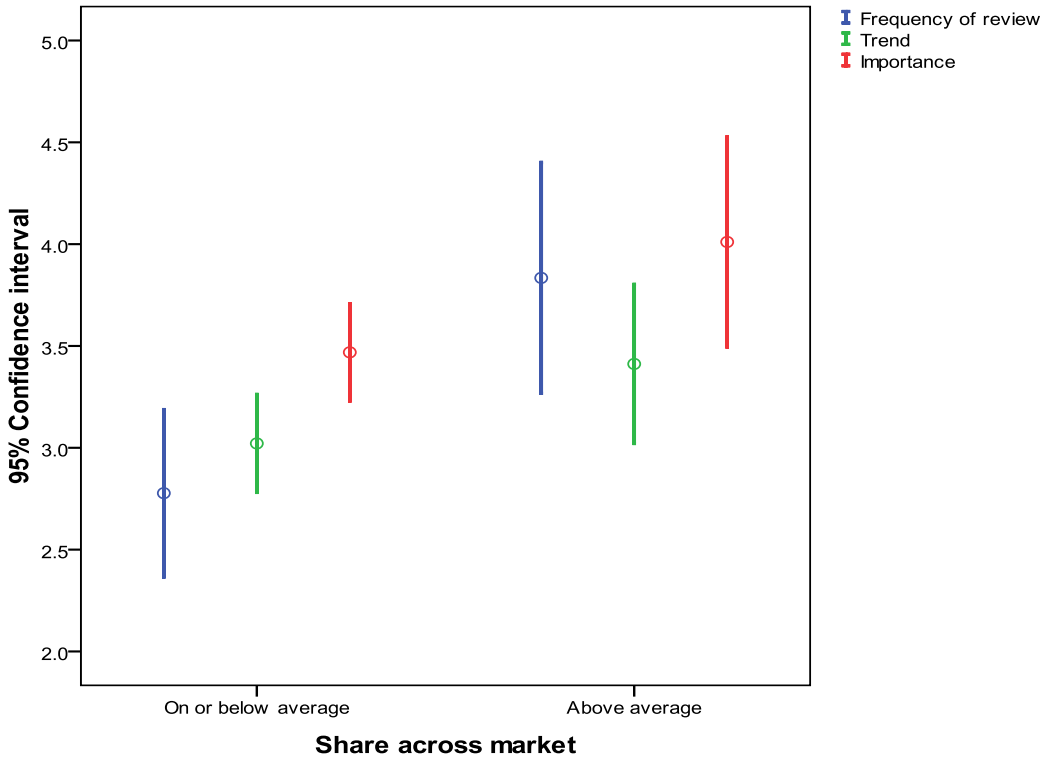
	Within Groups	50.004	42	1.191		
	Total	59.222	43			
Trend (Performance)	Between Groups	1.257	1	1.257	2.918	.095
	Within Groups	18.096	42	.431		
	Total	19.353	43			
Importance	Between Groups	2.423	1	2.423	5.011	.031
	Within Groups	20.307	42	.483		
	Total	22.729	43			

There was a significant difference between the two groups who reported above average, market share in different markets and those who reported average and below average. The result was significant for Importance of marketing metrics during a recession with p= 0.031 and the frequency of collection of metrics with a p = 0.08.

The error bar chart shows that with respect to each of metric indices, the group who reported above average share across markets had also scored higher on the frequency, performance and importance measures.

Classified - Internal use

Chart 5: Error chart: market share across markets



5.5.9. An assessment if market share relative to industry is related to performance, importance and frequency of metric collection during a recession

Table 43: Descriptive statistics of groups reporting market share relative to industry and variables of marketing metrics

Descriptive

	Share relative to industry	N	Mean	Std. Deviation
Frequency of review	On or below average	34	2.8045	1.14446

Classified - Internal use

	Above average	10	3.8471	.91894
	Total	44	3.0414	1.17357
Trend (Performance)	On or below average	34	3.0138	.66599
	Above average	10	3.4765	.58328
	Total	44	3.1190	.67087
Importance	On or below average	34	3.4879	.68071
	Above average	10	4.0000	.77544
	Total	44	3.6043	.72704

Table 44: Results of ANOVA groups reporting market share relative to industry and variables of marketing metric

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Frequency of review	Between Groups	8.399	1	8.399	6.941	.012
	Within Groups	50.823	42	1.210		

Classified - Internal use

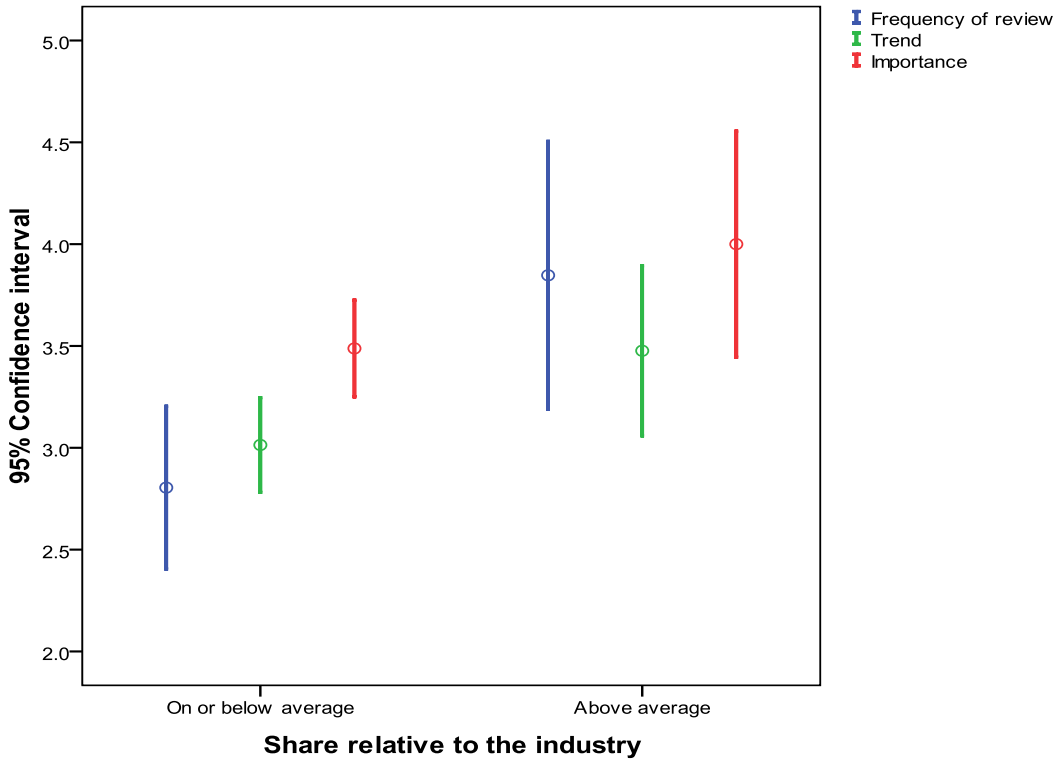
	Total	59.222	43			
Trend (Performance)	Between Groups	1.654	1	1.654	3.925	.054
	Within Groups	17.699	42	.421		
	Total	19.353	43			
Importance	Between Groups	2.027	1	2.027	4.111	.049
	Within Groups	20.703	42	.493		
	Total	22.729	43			

The P-values show that there is a significant difference between the means of the respondents who reported above average share relative to the industry compared to those who reported a below average. The result was significant for the frequency of collection of metrics p=0.012.

The error bar chart shows that with respect to each of metric indices, the group who reported above average share relative to the industry had also scored higher on the frequency, performance and importance measures.

Classified - Internal use

Chart 6: Error chart: market share relative to industry



5.5.10. A stepwise regression where all potential explanatory variables were entered to determine their relative influence on business success

The variables where then entered into a series of stepwise regressions in order to ascertain their relative weightings, percentage of variance explained and to eliminate potential multi-co linearity effects.

Classified - Internal use

5.5.10.1. Overall business success

The first relationship assessed was between all frequency, importance and trend across all metric categories and the amalgamation variable business success.

Business Success was defined as the combination of the following variables:

a. Profits

b. Profitability relative to industry

c. Sales growth Relative to Industry

d. Market Share in most important market

e. Market Share relative to industry

f. Market Share across markets

Table 45: Stepwise regression R squared: Overall business success

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.507[a]	.257	.240	.51584
2	.591[b]	.350	.318	.48861

a. Predictors: (Constant), Trend: Promotion

b. Predictors: (Constant), Trend: Promotion, Trend: Consumer attitudes

Classified - Internal use

Table 46: Results of ANOVA for Overall business Success

ANOVA[c]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3.872	1	3.872	14.551	.000[a]
	Residual	11.176	42	.266		
	Total	15.048	43			
2	Regression	5.260	2	2.630	11.016	.000[b]
	Residual	9.788	41	.239		
	Total	15.048	43			

a. Predictors: (Constant), Trend: Promotion

b. Predictors: (Constant), Trend: Promotion, Trend: Consumer attitudes

c. Dependent Variable: Business success

Table 47: Beta coefficients for explanation variables: Overall business performance

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.944	.320		6.074	.000
	Trend: Promotion	.382	.100	.507	3.815	.000
2	(Constant)	2.305	.338		6.817	.000
	Trend: Promotion	.614	.135	.815	4.545	.000
	Trend: Consumer attitudes	-.343	.142	-.432	-2.411	.020

a. Dependent Variable: Business success

The results show that the variance in business success is explained by performance of two groups of metrics namely promotion metrics and consumer attitudes metrics. The solution is significant at the 0.05 level. The regression coefficients show that there is a strong positive relationship between business success (0.815) and the performance of advertising and promotion metrics. There is a negative moderate relationship between consumer attitudes and business success.

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5.5.10.2. Profits

The second relationship to be ascertained was between frequency, importance, and trend and company profitability. The solution is significant at the 0.05 level (p = 0.034)

Table 48: Stepwise regression R squared: Profits

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.321[a]	.103	.082	.406

a. Predictors: (Constant), Frequency: Channel attitudes

Table 49: Results of ANOVA for Profits

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.796	1	.796	4.825	.034[a]
	Residual	6.931	42	.165		
	Total	7.727	43			

a. Predictors: (Constant), Frequency: Channel attitudes

b. Dependent Variable: Profits

Table 50: Beta coefficients for explanation variables: Profits

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.969	.132		7.316	.000
	Frequency: Channel attitudes	.084	.038	.321	2.196	.034

a. Dependent Variable: Profits

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Profitability was found to be explained by the frequency of collection of channel attitude metrics although the explanation accounted for only 8.2% of the variance. There is however a moderate positive relationship between profits and the frequency of collection of channel attitude metrics (β = 0.321; p = 0.034)

5.5.10.3. Profitability relative to industry

Thirdly, the analysis reviewed the relation of the metrics and profitability relative to industry. Again the solution was significant (p = 0.033).

Table 51: Step wise regression R squared: Profitability relative to industry

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.322[a]	.104	.082	.451

a. Predictors: (Constant), How often does your organization review the metrics collected?

Table 52: Results of ANOVA for Profits relative to industry

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.990	1	.990	4.860	.033[a]
	Residual	8.556	42	.204		
	Total	9.545	43			

a. Predictors: (Constant), How often does your organization review the metrics collected?

b. Dependent Variable: Profits relative to the industry

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Table 53: Beta coefficients for explanation variables: Profits relative to industry

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.944	.183		5.170	.000
	How often does your organization review the metrics collected?	.111	.050	.322	2.204	.033

a. Dependent Variable: Profits relative to the industry

Profitability relative to industry was found to be explained by the frequency of review of marketing metrics although the explanation accounted for only 8.2% of the variance. There is however a moderate positive relationship between profits and the frequency of review of marketing metrics (β = 0.322, p= 0.033)

5.5.10.4. Sales growth relative to industry

A similar analysis was then done between frequency, importance and trend of marketing metrics and sales growth. The solutions were significant (p = 0.002 and p = 0.001)

Table54: Stepwise regression R squared: Sales growth relative to industry

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.445[a]	.198	.179	.384
2	.550[b]	.303	.269	.362

a. Predictors: (Constant), Frequency: Success of new products

b. Predictors: (Constant), Frequency: Success of new products, Trend: Promotion

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Table 55: Results of ANOVA for Sales growth relative to industry

ANOVA[c]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1.532	1	1.532	10.382	.002[a]
	Residual	6.196	42	.148		
	Total	7.727	43			
2	Regression	2.341	2	1.171	8.911	.001[b]
	Residual	5.386	41	.131		
	Total	7.727	43			

a. Predictors: (Constant), Frequency: Success of new products

b. Predictors: (Constant), Frequency: Success of new products, Trend: Promotion

c. Dependent Variable: Sales growth relative to the industry

Table 56: Beta coefficients for explanation variables: Sales growth relative to industry

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.773	.152		5.078	.000
	Frequency: Success of new products	.132	.041	.445	3.222	.002
2	(Constant)	.296	.240		1.232	.225
	Frequency: Success of new products	.109	.040	.367	2.737	.009
	Trend: Promotion	.180	.072	.333	2.483	.017

a. Dependent Variable: Sales growth relative to the industry

The first step explained 18% of the variance and featured frequency of collecting metrics on the success of new products. The second step explained 27% of the variance. Here sales growth was found to be explained by the frequency of collection of metrics on success of new products (β = 0.367) and by the performance of promotion metrics (β = 0.333), there were moderately positive relationships between

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sales growth and the frequency that an organisation collects metrics on new products and the performance of promotion metrics.

5.5.10.5. Share in most important market

A similar analysis was then run between key metrics and percentage share in the most important market. The solution was significant at the 0.05 level (p = 0.003). Seventeen percent of the variance is explained.

Table 57: Stepwise regression R squared: Market share in most important market

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.434[a]	.188	.169	.421

a. Predictors: (Constant), Trend: Channel attitudes

Table 58: Results of ANOVA for Market share in most important market

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1.722	1	1.722	9.722	.003[a]
	Residual	7.438	42	.177		
	Total	9.159	43			

a. Predictors: (Constant), Trend: Channel attitudes

b. Dependent Variable: Market share in the most important market

Table 59: Beta coefficients for explanation variables: Market share in most important market

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.414	.290		1.430	.160
	Trend: Channel attitudes	.276	.089	.434	3.118	.003

a. Dependent Variable: Market share in the most important market

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Market share in the most important market was explained by the performance of channel attitude metrics (β = 0.434). There was a positive moderate relationship between the performance of channel attitude metrics and market share in the most important market.

5.5.10.6. Market share relative to industry

Market share was then assessed in terms of the impact of various metrics. The model produced consisted of four steps, the order of which is detailed below. A high 41% of the variance is explained in the final step. The result was significant at the 0.05 level with p= 0.006, p = 0.000, p = 0.009, p = 0.006 and p = 0.000

Table 60: Stepwise regression R squared: Market share relative to industry

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.496[a]	.246	.228	.372
2	.572[b]	.327	.294	.356
3	.626[c]	.392	.346	.343
4	.678[d]	.460	.405	.327

a. Predictors: (Constant), Frequency: Success of new products

b. Predictors: (Constant), Frequency: Success of new products, Level_Change

c. Predictors: (Constant), Frequency: Success of new products, Level_Change, Trend: Promotion

d. Predictors: (Constant), Frequency: Success of new products, Level_Change, Trend: Promotion, Trend

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Table 61: Results of ANOVA for Market share relative to industry

ANOVA[e]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1.904	1	1.904	13.729	.001[a]
	Residual	5.824	42	.139		
	Total	7.727	43			
2	Regression	2.526	2	1.263	9.957	.000[b]
	Residual	5.201	41	.127		
	Total	7.727	43			
3	Regression	3.026	3	1.009	8.580	.000[c]
	Residual	4.702	40	.118		
	Total	7.727	43			
4	Regression	3.557	4	.889	8.314	.000[d]
	Residual	4.171	39	.107		
	Total	7.727	43			

a. Predictors: (Constant), Frequency: Success of new products

b. Predictors: (Constant), Frequency: Success of new products, Level_Change

c. Predictors: (Constant), Frequency: Success of new products, Level_Change, Trend Promotion

d. Predictors: (Constant), Frequency: Success of new products, Level_Change, Trend Promotion, Trend

e. Dependent Variable: Share relative to the industry

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Table 62: Beta coefficients for explanation variables: Market share relative to industry

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.721	.148		4.885	.000
	Frequency: Success of new products	.147	.040	.496	3.705	.001
2	(Constant)	.831	.150		5.553	.000
	Frequency: Success of new products	.143	.038	.484	3.772	.001
	Level_Change	.075	.034	.284	2.215	.032
3	(Constant)	.456	.232		1.966	.056
	Frequency: Success of new products	.125	.038	.422	3.326	.002
	Level_Change	.075	.033	.284	2.304	.027
	Trend: Promotion	.141	.068	.262	2.061	.046
4	(Constant)	.738	.255		2.895	.006
	Frequency: Success of new products	.143	.037	.481	3.882	.000
	Level_Change	.086	.031	.326	2.731	.009
	Trend: Promotion	.495	.172	.918	2.882	.006
	Trend	-.457	.205	-.723	-2.228	.032

a. Dependent Variable: Share relative to the industry

Market share relative to industry was explained by the frequency that an organisation tracked metrics on innovation, the change in level of review of marketing metrics, the performance of promotion and advertising metrics and the performance of marketing metrics during a recession. These metrics explained 41% of the variance of market share relative to industry. There were strong positive relationship between, market share relative to the industry and the performance of promotion metrics during a recession (β = 0.918.). The frequency of collection of innovation metrics (β = 0.481), the level of change of review of marketing metrics during a recession (β = 0.326) and there was a negative correlation with the performance of all marketing metrics (β = -0.723).

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5.5.10.7. Share across markets

The final test was conducted to measure the relationship between market share across markets and different metrics. The results was significant at the 0.05 level with a reported p = 0.001. Twenty-one percent of the variance in market share across markets was explained by the frequency of collection of metrics on channels.

Table 63: Stepwise regression R squared: Market share across markets

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.482[a]	.232	.214	.388

a. Predictors: (Constant), Frequency: Channel attitudes

Table 64: Results of ANOVA for Market share across markets

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1.914	1	1.914	12.690	.001[a]
	Residual	6.336	42	.151		
	Total	8.250	43			

a. Predictors: (Constant), Frequency: Channel attitudes

b. Dependent Variable: Share across market

Table 65: Beta coefficients for explanation variables: Market share across markets

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.850	.127		6.710	.000
	Frequency: Channel attitudes	.131	.037	.482	3.562	.001

a. Dependent Variable: Share across market

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Market share in different markets was found to be explained by the frequency a firm collected metrics on channel attitudes (β = 0.482).

5.5.10.8. Conclusion

The research question as to whether the change in the importance, frequency of collection, level of review and performance of marketing metrics during a recession has an impact on the business success during a recession was extensively tested.

The evidence found stated that business success during a recession was impacted positively by the frequency of collection of channel metrics, performance of promotion metrics during a recession and by the performance of consumer metrics during a recession.

Profits were found to have been impacted by the frequency of collection channel metrics, while profitability relative to the industry was impacted by the frequency an organisation collected marketing metrics.

Sales growth relative to industry was impacted by the level of importance of marketing metrics during a recession, the performance of marketing metrics during a recession as well as the frequency of collection of marketing metrics. Other factors that were reported included the frequency of collection of innovation metrics and the performance of promotion metrics during a recession.

Market share in the most important market was found to be impacted by the performance in channel attitude metrics and by the frequency of collection of

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marketing metrics and the performance of marketing metrics during a recession, while market share relative to industry was impacted by the frequency of collection of metrics particularly new products. It was also impacted by a change in the level of review of metrics, the performance of all marketing metrics but particularly the performance of promotion metrics.

Market share in all markets was impacted by the level of importance of marketing metrics during a recession and the frequency of collection of metrics with emphasis on channel attitudes.

As much as there was evidence found to prove a positive correlation between the changes collection and performance of marketing metrics, there was not enough evidence to reject this proposition due to the lack of evidence. The research question is thus, partially rejected

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5.6. Summary

The findings of the results are summarised in the table below

Table 66: Summary of results

Hypothesis	Result
What is the extent of use of marketing metrics in South African companies? South African Companies will collect about the same number of metrics as those collected by Farley, Hoenig, et al. (2008).	Research Question Not Rejected
To what extent are marketing metrics are collected and reviewed in South Africa? South African Marketing proffesionals will collect metrics more frequently and the level of review of these metrics will be at all levels in the organisational structure	Research Question is rejected
To what extent does a recession affect the use of marketing metrics? Firms willcollect and review more metrics during a recession as this information will assist them in resource allocation during tough economic conditions	Research Question rejected
What extent does the change in review, performance, collection and importance of a firms marketing metrics during a recession has on its business performance during recessions? Firms that change the frequency of collection,review,importance and monitor performance of marketing metrics will perform better than firms that do not	Research Question Partially Rejected: Although there were positive correlations found between the change of use of marketing metrics during a recession, not all the metrics were found to be correlated with any change. The lack of findings does not mean that there is no relationship, only that the sample did not provide evidence of that relationship

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6. DISCUSSION

6.1. Research Question 1:

What is the extent of use of marketing metrics in South African companies? South African Companies collected about the same number of metrics as those collected by Vietnamese firms, Farley, Hoenig, et al. (2008), who used an average of 68% of the metrics in the metric groups that this study measured.

To assess the number of South African firms that used marketing metrics, data was collected to establish firms that collected at least one metric once a year. The results of these show that 98% of the firms surveyed collected at least one metric per annum.

Table 67: Descriptive statistics of firms that collect at least one metric per year

Firms who collect at least one metric in a year

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Collect no metrics	1	2.3	2.3	2.3
	Collect any metrics	43	97.7	97.7	100.0
	Total	44	100.0	100.0	

Results of tests to establish the number of metrics used at least once a year showed that 39% of the respondents used more than 10 metrics, while 68% of the respondents collected at least 15 metrics. One tailed t-tests showed that South African marketers did not collect significantly lower or significantly higher number of

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metrics that their Vietnamese counterparts as established in Farley, Hoenig, et al. (2008). With a T = 1.366, the result was not significant at p = 0.005.

The results are in line with those found by Farley and Barwise, (2005), who found that most businesses they surveyed in U.S.A, Japan, Germany, U.K and France reported one or more of six measures to the board. The use of metrics by South African firms confirms the trends identified in the literature and show that South African

Firms recognise the usefulness of marketing metrics as a method of assessing marketing performance; this also conforms to the literature reviewed.

6.2. Research Question 2:

To what extents are, marketing metrics collected and reviewed in South Africa?

Results were obtained for tests run to determine the level of collection and review of metrics. Tests on whether marketing metrics were collected on a monthly basis returned a T= -11.070, this was significant at p=0.05, while tests to determine whether marketing metrics were collected on quarterly basis and these returned results of T= -5. 418, which was significant at p= 0.05, hence metrics are collected at significantly lower intervals than monthly or quarterly.

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Table 68: Descriptive statistics of frequency of metrics collection

		Average Frequency Collected	Highest Frequency Collected
		Mean	Mean
How many years have you worked in the marketing field?	Not provided	2.60	4.83
	Less than 1 year	2.85	5.50
	1 - 3 years	4.69	5.33
	3-5 years	3.15	5.50
	5-10 years	3.18	5.20
	Over 10 years	3.04	5.10
How many people are employed in your organisation?	Not provided	2.66	4.74
	0-500 Employees	3.24	5.47
	500-1000 Employees	1.88	4.00
	1000-5000 Employees	2.85	5.00
	5000-10000 Employees	4.50	5.50
	Over 10000 employees	3.86	5.33
Gender	Not stated	2.56	4.79
	Female	3.06	5.00
	Male	3.40	5.39

Table 68, describes, the number of metrics collected on average. Individuals with 1-3 years of experience collected the most metrics at five, while the least was collected by those with less than one year's experience. Large organisations (5,000 – 10,000 employees) collected more metrics than the smaller ones (less than 5000 employees).

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Large organisations collected five metrics while small organisations (500 – 1000 employees) collected two metrics.

The reasons for this may be that the smaller organisations do not have the capacity to collect, analyse and act on marketing metrics. It may also be that these small organisations do not appreciate the need for metrics due to lack of pressure from their boards. They are also less likely to be listed on stock exchanges thus experience less pressure from shareholders.

These results are in line with the observations made by Eusebio, Andreu and Belbeze,(2006) who report that Spanish firms collect metrics quarterly or annually which corresponds to a South African average of six months found in this study. The level of review of marketing metrics in South Africa was also examined. A chi-square of 32 was reported, this was significant at p=0.000. The result showed that metrics were reviewed at higher levels of the organisation.

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Table 69: : Descriptive statistics of collection of marketing metrics by management level and age

		What is the highest level of review of the metrics collected?									
		No review		Junior Marketing Managers		Senior Marketing Management		Senior Executive Management		Board of Directors	
		Count	Column N %	Count	Column N %	Count	Column N %	Count	Column N %	Count	Column N %
How many years have you worked in the marketing field?	Not provided	1	33.3%	1	100.0%	2	50.0%	4	22.2%	4	22.2%
	Less than 1 year	0	.0%	0	.0%	0	.0%	1	5.6%	1	5.6%
	1 - 3 years	0	.0%	0	.0%	1	25.0%	2	11.1%	0	.0%
	3-5 years	0	.0%	0	.0%	1	25.0%	0	.0%	1	5.6%
	5-10 years	0	.0%	0	.0%	0	.0%	3	16.7%	2	11.1%
	Over 10 years	2	66.7%	0	.0%	0	.0%	8	44.4%	10	55.6%
How many people are employed in yo organisation?	Not provided	2	66.7%	1	100.0%	2	50.0%	6	33.3%	8	44.4%
	0-500 Employees	0	.0%	0	.0%	2	50.0%	5	27.8%	10	55.6%
	500-1000 Employees	1	33.3%	0	.0%	0	.0%	0	.0%	0	.0%
	1000-5000 Employee	0	.0%	0	.0%	0	.0%	2	11.1%	0	.0%
	5000-10000 Employe	0	.0%	0	.0%	0	.0%	2	11.1%	0	.0%
	Over 10000 employee	0	.0%	0	.0%	0	.0%	3	16.7%	0	.0%
Gender	Not stated	2	66.7%	1	100.0%	2	50.0%	4	22.2%	5	27.8%
	Female	1	33.3%	0	.0%	1	25.0%	6	33.3%	4	22.2%
	Male	0	.0%	0	.0%	1	25.0%	8	44.4%	9	50.0%

The results of the data show that people with between five and ten years experience in the marketing experience had metrics reviewed at the senior executive management level and at the board of director's level. Most organisations reported reviewed metrics at the senior executive management level, smaller organisations (0 - 500 employees) reviewed metrics at the board of directors level. This could be mainly due to their size that would allow the board to have time and access to these information. The result was justified in the literature with various authors including Ambler (2000), arguing for greater board involvement in the review of marketing metrics.

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There were a significant proportion of the respondents who reported no review of marketing metrics. The underlying reason for this could be a lack of understanding of marketing metrics by marketing professionals which could be caused by marketers being unable to separate short effects from long term ones, Eusebio, Andreu and Belbeze (2006).

The prevalence of business measures, Eusebio, Andreu and Belbeze (2006), could be another reason for the lack of reporting of marketing measures. Another reason for this could be confusion as to what metrics to use as noted by Gronholdt and Martensen (2006).

The interpretation of this result means that senior management and the board of directors in South African firms have taken an increased interest in marketing metrics which Ambler (2000) advocates for

6.3. Research Question 3:

To what extent does a recession affect the use of marketing metrics?

Results obtained to determine whether metrics use changed during a recession involved testing whether significant numbers of firms changed the frequency of collecting metrics and whether the review of metrics changed during tough economic conditions.

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The analysis shows that only eight of the 44 firms changed the frequency of collection of metrics, this means that only 18% changed their frequency of collection against a test proposition of 50%. These results were significant at p=0.000.

Tests to determine whether there was a change in level of reporting also returned lower than expected scores with a mere 5% reporting an increase in the level of reporting of metrics during a recession.

There was evidence that suggested a correlation between the level of metrics reporting before a recession and levels during a recession, however these correlations; Kendall's tau-b = 37% and Kendall's tau-c = 33% were moderate. Therefore, the question as to whether the review and collection of marketing metrics changed during a recession was rejected.

These results imply that although South African marketing practitioners do collect and review marketing metrics during all economic cycles, emphasis has not been placed in using these metrics to measure how a company's marketing efforts are performing.

Although some literature argues for increased spending during tough economic cycles, which would imply increased scrutiny of marketing activities, the practice does not appear well entrenched in South Africa.

One reason could be that marketing professionals and the boards of companies are concerned with reducing expenses to salvage profits Pearce and Michael (2006), that they may not be concerned with tracking the performance of marketing.

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Another reason for this lack of increased scrutiny of metrics could be the fact that marketing professionals in South Africa have not yet established the importance of marketing metrics as robust tools to measure the state of marketing expenditure. This failure means that consequently boards of directors will resort to purely financial measures to try to gauge the performance of the organisations. There is also a lack of literature that tackles the use of marketing metrics during recessions. While the author does not suggest that, there could be prescriptive solutions on what metrics to use during recessions, studies on what metrics marketers deem important during recessions would be a starting point in solving the issue.

This heavy reliance on financial measures will resort to decisions that make the organisations less market oriented and thus badly positioned for economic recovery

6.4. Research Question 4:

What extent does the change in review, performance, collection and importance of a firm's marketing metrics during a recession has on its business performance during recessions?

For the research question numerous tests were carried out, they sought to show that there was a correlation between the changes a firm made regarding marketing metrics during a recession and the performance of the organisation during a recession.

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Results returned show that there was evidence of a link between marketing metrics and business success.

The measure overall business success is a created measure that summed up the traditional success measures of an organisation. These were profits, profitability relative to industry, sales growth relative to industry, market share in most important market, market share relative to territory and market share across markets.

6.4.1. Overall Business Performance

Overall business success was found to be correlated with the frequency of collection of channel attitudes, with a Pearson Correlation of 35% which was significant at p=0.05, Business was also found to be correlated to the performance of promotion metrics with a Pearson Correlation of 51% which was significant at p=0.05.

Analysis from step wise regression performed revealed that overall business performance was highly positively correlated with the performance of promotion metrics during a recession which had a regression coefficient of 81% , there was also a negative correlation with performance of consumer attitudes during a recession which had a regression coefficient of – 43%.

Channel metrics appear to drive the performance of overall business performance, this result confirms the arguments made by Koksal and Ozgul, (2007) and Pearce and Michael, (2006). This implies that for businesses to be successful during a recession they need to ensure that their operations work well. They need to track the

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performance of their channel metrics to identify the unprofitable channels and eliminate these in favour of those that perform well.

Another key finding is that of the high correlation between business performance and the performance of promotion and advertising metrics during a recession. This result reflects the findings of Koksal and Ozgul, (2007) and Ang, (2001) , who also found a strong correlation between promotions and sales. The implication is that firm's have to keep advertising and promoting their products during tough economic times. By doing so they ensure that, continue being relevant in the consumer's minds and thus are able to succeed during economic crises and in the recovery that follows.

6.4.2. Profitability

Profitability was found to be correlated with the frequency with which firms collected channel metrics, although it explained only 8% of the variance, there was a 32% correlation between the two. This result also confirms Koksal and Ozgul, (2007).

The result reinforces the findings in the section above, it is again clear that a firm's ability to execute at the channel has a correlation with the ability to generate profits during a recession.

While measurement of channel metrics only explains for a small percentage of the variance, it does appear to be a good measure to indicate a firm's future profitability.

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6.4.3. Profits relative to Industry

Step wise regression results found a moderate correlation of 32% between profits relative to the industry and the frequency of review of marketing metrics. This variable explained 8% of the variance in profits relative to the industry. A firm's profit relative to that of its peers in the industry was found to be correlated to the frequency with which it collects marketing metrics. Ambler (2000) argues that firms that are market oriented perform better than those that are not. A good sign of a market oriented company is one the regularly collects and reviews marketing metrics. O'Sullivan and Abela (2007), found that the ability to measure marketing performance across all marketing activities led to better firm performance.

The implication is that as a firm continuously tracks it marketing performance it is able to develop an understanding of what measures its competitors are implementing and thus is able to respond to these in a timely fashion. Regular monitoring of the market place through marketing metrics will build knowledge in the organisation regarding competitors and thus allow the firm to counteract these measures.

6.4.4. Sales growth relative to firms industry

Results of ANOVA found that there was a significant difference of means between groups that reported above average sales growth relative to a firm's industry and those who reported average or below average sales growth. There was a difference of means on frequency of collection of metrics with a reported $p = 0.09$, the

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performance of metrics during a recession, p = 0.015 and the increased rank of importance of metrics during a recession with a p = 0.065.

Analysis of results from the stepwise regression found that 27% of the variance in sales growth relative to a firm's industry was explained by frequency with which the firm collected metrics on success of new products and the performance of promotion and advertising metrics. These two variables had a 36% and a 33% correlation respectively.

The correlation between the performance of promotion and advertising metrics during a recession shows that firms should invest in advertising and promotion during tough economic periods, Ang, (2001) and Koksal and Ozgul, (2007). Firms should resist the urge to cut these budgets Pearce and Michael, (2006), as studies have proven that firms who advertise during recessions are able to have better sales growth.

The analysis also reveals that the firm's ability to track the success of new products rewards it with increases sales. Koksal and Ozgul, (2007), find that new products should be increased during a recession in order to capture niche markets and add higher quality products at the same price.

Firms should therefore be careful not to launch new products and fail to monitor their performance, as these new products could be sources of increased sales during recessions.

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The results also indicated the importance attached to marketing metrics during recession contributed to sales growth. This suggests that marketers should identify the metrics that provide them with the most crucial information during a recession and focus on those.

6.4.5. Market share in most important market

There was a significant difference of means between groups that reported above average performance of market share in the most important market and those who reported average or below average market share. The difference in means was with respect to the performance of marketing metrics during a recession with $p = 0.012$. Market share in the most important market was found to be explained by the performance of channel attitudes; the variable explained 17% of the variance and had a 43% correlation between the two variables.

In a recession, a firm's market share in its most important market was found to be driven by the performance of marketing metrics and especially the performance of channel metrics. This analysis shows that a firm should ensure that it has excellent operating model that is able to adequately serve the channels through which it sells its products.

This result is relevant for South African firms with overseas operations, recessions are known to affect different regions, and thus marketing practitioners in these firms should have measurement capabilities in these markets.

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6.4.6. Market share across markets

Market share across markets, also reported a difference of means between the two groups, the difference was with respect to the frequency of collection of metrics with a reported p = 0.008 and the performance of marketing metrics during a recession, p = 0.031.

The frequency with which a firm collected channel attitude metrics explained 23% of the variance of market share across markets; it reported a regression coefficient of 48%.

The result of this analysis shows that a firm that frequently collects marketing metrics is able to understand its performance across many markets. This is coupled with the finding that there is a correlation between market share in different markets and the frequency of collection of channel metrics.

Thus, the organisation that is able to adequately track the performance of it channels in different markets will be able to increase its market share across markets.

6.4.7. Market share relative to industry

Finally ANOVA results of market share relative to industry found that there was a significant difference in the means with respect to the frequency of collection of marketing metrics, p = 0.012, in particular the frequency with which a firm collected metrics measuring the success of new products with a correlation coefficient of 48%. Stepwise regression also found that market share relative to industry was also

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explained by the change of level of review of marketing metrics during a recession which reported a regression coefficient of 32%, the performance of promotion metrics during a recession with a coefficient of 92% and the performance of all marketing metrics with a coefficient of -72%

The most important metric a firm needs to track in relation to its market share in its industry is the performance of it promotion and advertising a result that Ang, (2001) and Koksal and Ozgul, (2007) both find in their studies. This means that if a firm is able to outperform its peers by having it products more visible, then it stands a good chance to increase its market share relative to its peers.

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7. CONCLUSION

The use of marketing metrics has long been advocated by marketing researchers and practitioners as a means of not only measuring the marketing function's to the bottom line but also as a measure to help marketer's better utilise resources available to them.

With this push for metrics, the marketers have been bombarded with a deluge of marketing metrics that they do not know what metrics to use and which to leave out. This situation bad as it is during a good economic environment becomes worse during recessions as company's cut costs to preserve cash so as to report better earnings to their shareholders. Marketers who cannot justify the need for increased or uncut budgets using clearly understood measures would find their funds reduced and this in turn makes the organisation less market oriented.

To achieve a state of marketing metrics numeracy in South Africa, one must begin by understanding the extent of use of marketing metrics in South Africa. Further, this study sought to understand the change in the use of metrics during a recession and evaluate if use of marketing metrics during a recession resulted in better business performance in the same period.

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7.1. Finding and Recommendations

1. The enquiry found that there was extensive use of marketing metrics in South Africa. The finding was significant. Over 95% of the organisations surveyed used at least one metrics per year. The results were in line with studies done in other countries with different economies

2. Marketing Metrics were found to be collected less frequently than monthly or quarterly, which conform to the practice in other countries notably Spain. In order to take full advantage of the benefit that these metrics offer, it is suggested that firms, collect and review metrics more regularly. This will ensure that firms are able to respond to changes in markets faster than if collected every six months.

3. Data shows that review of marketing metrics happens at senior levels of the organisation namely at a senior executive management level and at board of director level. This means that reactions to the metrics will trigger marketing decisions that should enable a company to thrive. It is recommended however, that senior management and board of directors of South African firms push for more frequent collection of the metrics.

4. Marketing metrics use i.e. the collection and review of these metrics was found not to change during a recession in South Africa. Research has shown that recessions are good times to increase promotion's distribution channels and the introduction of new

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products, thus there should be an increased focus on marketing and tracking the measurement of marketing during a recession

5. There was evidence that the use of marketing metrics increased business performance during a recession. The importance of metrics and the level of review were found to positively affect market share. The key finding was that for businesses to be successful in a recession they need to collect and monitor metrics on channels, promotion and advertising and innovation. Thus, it is recommended that during a recession firms that have a flawless execution in the channels that sell their products, they continuously promote and advertise their products and they launch new products. By performing these actions and tracking the results firms will be able to better survive recessions

7.2. Future Research

This research has identified a number of improvements in terms of the methodology and limitations that can provide future research opportunities

1. There is scope to further study the level of knowledge of marketing metrics in South Africa and determine if local economic and cultural factors influence the selection of marketing metrics.

2. The research did not find evidence of branding and customer metrics having an impact in the performance of business. A study may undertaken to identify which metrics in these two categories drive business performance in South Africa

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7.3. Potential Research Limitations

1. This research focused only on marketing practitioners in South Africa, it may be beneficial to interview finance associates, CEO's and the Board of these organizations a holistic picture of marketing metrics use. As most of the questions will be self reporting there may be some response bias.

2. Marketing activities in South Africa may largely be carried out in conjunction with other organisations such as advertising agencies, these organisations may play a large role in operationalising a firms marketing strategy, and thus it may be beneficial to understand these organizations perceptions of marketing metrics.

3. There was the possibility that some of the concepts used in the survey instrument were misunderstood by the respondents.

7.4. Final Remark

The author undertook this study to better understand the use of marketing metrics in South Africa during a recession. The author hopes that this study will contribute greatly to the body of knowledge on marketing metrics.

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9. APPENDICES

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