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Risk Adjusted Performance Measures in a Property Finance Business in South Africa: A Banking Perspective

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Important note: Views expressed do not represent the views of Nedbank.

Agenda

1. Introduction & Background.
2. Literature Review.
3. Research Methodology.
4. Results.
5. Discussion of Results.
6. Conclusion.
7. Recommendations.

Introduction & Background

- Purpose of the study:
  - Risk adjusted measures versus traditional measures (ROA, ROE)
  - Applications to banking
  - Impact on strategic decisions on pricing, capital allocation and risk management
  - Topical issue in banking.
- Key terms:
  - Economic Profit & Economic Value Added
  - RAROC & RORAC
  - Economic Capital.

Literature Review

- Israeli and US studies (2005)
- Results of previous studies indicate that:
  - RAPMs are different from traditional performance measures such as ROE & ROA
  - RAPMs are consistent with optimal allocation of capital derived from the mean variance portfolio theory or optimal portfolio theory
  - RAPMs reflect gains from diversification that lead to improved risk management
  - Use of RAPMs lead to different strategic decisions.

Research Methodology

- Case study: Property Finance Business in a Bank
- Mixed approach: Quantitative & Qualitative research methods.
- Mathematical models from finance theory applied to banking:
  - Sharpe measure: Excess return of individual business activity per unit of risk taken by that individual business activity
  - Treynor measure: Excess return of individual business activity per unit of risk relative to risk taken by whole business
  - Jensen measure: Measure of Economic Profit.
- Non-parametric test: Hypothesis testing of Spearman Rank Correlation coefficient.

Results

- Performance rankings:
  - Results suggest a difference in performance of business activities when the returns are adjusted for risk. A business activity that performs better on a non-risk adjusted basis may not necessarily be the best performing on a risk adjusted basis.
  - There was significant change in performance rankings after adjusting returns for risk suggesting that the risk adjusted measures lead to materially different strategic decisions compared with the non-risk adjusted measures
  - Results supported by hypothesis testing and interviews of executives…

Results

- Hypothesis testing…
  - The tests were aimed at establishing the statistical significance of the differences in performance rankings arising from the pairing of risk adjusted and non-risk adjusted performance measures. There was no statistically significant evidence to support that the rankings are not materially different.
- Executives interviewed:
  - supported the use of RAPMs in strategic decision making compared with traditional non-risk adjusted measures of performance.

Discussion of Results

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- The results are supported by the literature reviewed.
  - Any anomalies may be a result of sampling error.
  - They confirm that decisions on risk adjusted performance measures are materially different from those on traditional non-risk adjusted measures.
  - The performance rankings and the hypothesis testing of the rankings confirm the results statistically.
- The executives interviewed were strongly in favour of RAPMs.
  - They noted that pricing decisions, capital allocation decisions, performance measurement, risk management and performance incentives for managers must all be based on RAPMs.

Discussion of Results

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- Despite these results:
  - It was found that Headline Earnings remain an important measure of profitability as dividends to shareholders are based on these.
  - However, it is important to look at how these Headline Earnings are achieved by taking a closer look at the risks being taken by a business and how efficiently capital is deployed on a risk adjusted basis to achieve the resultant Headline Earnings.
  - It is important to balance decisions to ensure appropriate risk adjusted returns whilst building a sustainable business over the long term through continued growth in Headline Earnings.

Discussion of Results

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- Despite these results:
  - It is also important to consider other practical and strategic considerations for the long term sustainability of a business.
  - These include, for example, competition and the need to adopt defensive strategies to maintain market share.
  - For example, it may be appropriate to loss lead and secure small and less profitable clients who, may, in future, be expected to generate more profitable business on a risk adjusted basis.
  - It means that a bank would miss the opportunity to lend into the resultant low risk business where competitors played a critical role in the success of the business when it was considered high risk.

Conclusion

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- Results consistent with previous research:
  - May, therefore, be considered reliable and valid
  - RAPMs are superior measures of performance to traditional non-risk adjusted performance measures
  - Results are important to executives involved in strategic decisions affecting the performance of banking and other financial institutions.
- Changing regulations a major force now and in future:
  - Influenced by Basel II and III in banking and Solvency II in the short-term and long-term insurance sectors.

Conclusion

- RAPMs provide a means to optimal and sustainable decisions in the following areas of business for financial institutions:
  - Pricing
  - Capital allocation among business units, products and activities
  - Performance measurement for business units, products and activities
  - Risk management
  - Strategic decision-making such as investment and disinvestment decisions or mergers and acquisition decisions
  - Performance incentives for managers.

Recommendations

- No longer sufficient to focus on traditional measures of performance
  - Situation exacerbated by changing regulations (Basel II & III)
  - Banking executives must pay attention to RAPMs
- Implement sustainable systems built on a strong culture of governance and risk management
- Shareholders must start asking questions relating to performance on a risk adjusted basis

Recommendations

- Must report/disclose RAPMs in published financial statements alongside explaining the risks taken by the business.
- Banking analysts are an important force to influence reporting on a risk adjusted basis and to educate shareholders.
- Remunerate executives on RAPMs consistently over time.

Questions/Discussion