Tourism Recreation Research and Education Centre

Lincoln University

Enhancing Financial and Economic Yield in Tourism:

Business Interviews:
Financial Yield Benchmarks

John Moriarty
David G. Simmons

Yield Report 8B

LINCOLN UNIVERSITY
Te Whare Wānaka O Aoraki
LINCOLN UNIVERSITY, PO BOX 84, CANTERBURY 8150, NEW ZEALAND

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Contents

List of Tables

List of Figures

Chapter 1
Purpose

The purpose of this brief technical report is to calculate and examine financial yield from results provided by the 65 businesses within the SME business interviews. These results are then examined alongside sector profiles for corresponding business sectors as generated from a comprehensive analysis of the NZ Tourism. They provide an important test for the development of financial yield calculations while serving to demonstrate the reliability of the interview sample.

1.1 Measures of Financial Yield

Tourism Strategy 2010 identified the objective of achieving greater financial and economic sustainability from tourism businesses and observed that there were a number of mechanisms that might contribute. A series of in-depth business interviews has examined businesses to investigate relationships between proprietor behaviour and financial performance. Whilst no single metric informs on every aspect of business performance, one that incorporates both trading and capital efficiency is appealing. This study uses 'financial yield' (FY) as a measure that provides insight into the efficiency of an enterprise and does so by examining the degree to which its assets generate cash returns to shareholders. The measure also assists with an estimation of financial and economic sustainability criteria as enterprises that consistently perform at levels of FY above the current costs of borrowing capital (usually measured as business loan interest rates) can be argued to be sustainable.

1.2 Financial Yield (FY) Relationships

The choice of FY as a means of measuring financial and economic sustainability is based on two common-sense observations. If an enterprise fails to generate more cash than it consumes it eventually ceases trading: i.e. it is not financially sustainable. Further, if an enterprise does generate more cash than it consumes, but less than what could be obtained by deploying its assets elsewhere in the marketplace at a similar level of risk it is inefficient: i.e. not economically sustainable. These are consistent with the generally accepted solvency principles established in statute[1].

If these two observations are reduced to expressions that reflect business performance, then for financial sustainability,

Surplus cash from trading= Net Operating Profit after Tax = All cash income - All cash expenses > 0,

and for economic sustainability

(Net Operating Profit after Tax)/Assets – (Alternative Operating Profit after Tax)/Assets > 0.

If Financial Yield (FY) is defined as *(Net Operating Profit after Tax)/Assets,*

And if the Cost of Capital (CC) is defined as *(Alternative Operating Profit after Tax)/Assets,*

1 New Zealand Companies Act, 1993, Section 4

Then the expression that informs on both financial and economic sustainability is

$$(FY - CC)*Assets > 0.$$

This means that FY must be positive and also greater than CC, provided Assets are also positive. It is unlikely that the market return (CC) is ever negative!

This expression is also found in the work by Stewart[2] in their definition of EVA (economic value added) – a metric that is used to gauge the efficiency of an enterprise.

In summary, if FY can be measured for an enterprise and compared with the FY of other enterprises, a financial performance benchmark is obtained. If FY generally exceeds the market cost of capital (CC) then an economic benchmark is obtained. Proprietor behaviours associated with various levels of FY may be indicators of success or identify improvement programmes that enhance the financial and economic sustainability of tourism enterprises.

In practice, FY is measured by examining the Statements of Financial Position and Financial Performance of an enterprise and applying several rules to ensure as equitable a degree of comparison between individual enterprises. The rules used in the estimation and reporting of FY are:

- Working proprietors have the same standing as shareholders. For consistency with the treatment of other studies on FY they are deemed to receive remuneration from dividends. Correspondingly, salaries or wages paid to working proprietors are not treated as a business expense. This allows comparisons that are independent of proprietor remuneration.
- Interest costs are a reflection of particular methods of funding. Business performance should not depend on whether funding is via external debt or proprietor equity. This allows comparisons that are independent of funding.
- Assets may be either leased or purchased. Since asset use is independent of the method used to finance it, any leased asset will be treated as if it were purchased. This allows comparisons that are independent of asset financing.
- Results outside the range ± 30% were excluded from the analysis, and are not reported. The basis for this was to enable comparisons with sector wide benchmark data obtained from in-depth analysis of the Tourism Satellite Account. Outliers distorted the calculation of statistical measures such as mean (average) and variance (range) and generally occurred where the asset value was extremely low and generated extraordinary values of FY.
- FY was calculated from the expression:

$$\frac{(GrossOperatingSurplus - Taxes + Interest + Leases)}{(FixedAssets + LeasedAssetValue)}.$$

The numerator describes Net Operating Profit after Tax as explained above and now incorporates the assumptions regarding interest, proprietor remuneration and leases. The denominator aggregates the trading resources.

- Wherever leases were identified, they were treated as financial charges (interest) and the capital value of the lease was estimated at 13 times the annual lease payment and added to assets. If the exact value of the leased asset was known (from a valuation) this figure was used.

2 Stewart, G B. The Quest for Value, HarperBusiness, 1990, p136

- Determination of performance quartiles. Earlier analysis of financial yields3 identified that they were distributed 'Logistically' however this survey identified a 'Normal' distribution and the quartile boundaries have been derived from P(0.25), P(0.5), P(0.75) respectively.
- Confidentiality. Financial data have been given in confidence and this study will accumulate results where the identity of respondents might become known either through direct comparison or by process of elimination. Generally ratios conceal the identity of respondents, whereas revenues and asset levels may not.

1.3 Financial Yield Results and Commentary

Proprietors were generally extremely co-operative in providing confidential access to their most recent financial results. The sensitivity of this information cannot be understated and as was expected, there were a number of enterprises that declined access. Table 1 below identifies the number of useable FY's and the financial years to which they applied. There were no longitudinal data for successive financial years.

Table 1
Concordance

Concordance	Samples	%
Total Samples	67	100%
Financials Not Supplied	10	15%
Financials Consolidated	2	3%
Useable Financials	55	82%
2004 Samples	2	3%
2005 Samples	23	34%
2006 Samples	30	45%
	55	82%

Results for those 60 percent of enterprises who were able to produce financial information for 2006 only are given in Table 2. Some enterprises were excluded from the measurement of average FY – those with FY over 30 percent. Quartile boundaries were established from the application of a normal distribution having the same mean and variance as the 2006 sample set. Note that for confidentiality purposes, the maximum financial yield is reported as >60% and the minimum as <-10%.

3 Moriarty, J. Enhancing Financial and Economic Yield in Tourism, Analysing NZ's TSA or measures of Sector Performance and Business Benchmarks, TRREC, Yield Report No.2, March 2006, Appendix 3.

Table 2
FY Results 2006 Year (n=24)

Enterprise FY Analysis	Actual	
2006 Max	>60%	
2006 Min	<-10%	
2006 Average	8.9%	± 30% FY
95% Confidence	± 3.2%	± 30% FY
2006 Variance	0.6%	No.of Samples
2006 Q1	3.5%	6
2006 Q2	8.9%	6
2006 Q3	14.3%	6
2006 Q4	> 14.3%	6

The results for 36 percent of the samples applied to financial data for 2005. These are given in Table 3 below. Note that extreme FY values are again not included in the calculation of the average.

Table 3
FY Results 2005 Year (n=21)

Enterprise FY Analysis	Actual	
2005 Max	>60%	
2005 Min	<-10%	
2005 Average	6.5%	± 30% FY
95% Confidence	± 4.0%	± 30% FY
2005 Variance	0.9%	No.of Samples
2005 Q1	0.2%	4
2005 Q2	6.5%	6
2005 Q3	12.8%	6
2005 Q4	> 12.8%	5

The combined results for all years are given in Table 4 below. As only 4 percent of samples furnished data for 2004 confidentiality was preserved by incorporating their results into this set of results. Overall 9 yields throughout all of the years were excluded from the averages since they exceeded the threshold of 30 percent

Table 4
Combined FY Results 2004 -6 Years (n=46)

Enterprise FY Analysis	Actual	
2004,5&6 Max	>60%	
2004,5&6 Min	<-10%	
2004,5&6 Average	7.9%	± 30% FY
95% Confidence	± 2.5%	± 30% FY
2004,5&6 Variance	0.8%	No.of Samples
2004,5&2006 Q1	2.0%	12
2004,5&2006 Q2	7.9%	10
2004,5&2006 Q3	13.8%	13
2004,5&2006 Q4	> 13.8%	11

For subsequent analysis and reporting, the quartile boundaries were established from the combined results of years 2006, 2005 and 2004.

1.4 FY Results by Tourism Sub-Sectors

Aggregation of results into the industry sub-sector (ANZSIC) codes associated with respondent activities has been possible for cases where sufficient samples ensure confidentiality.
Table 5 and Figure 1 report the average financial yields and associated ranges along with the performance quartiles arising from analysis of the 46 interviewees who provided in-depth data. Data have been aggregated into six categories:

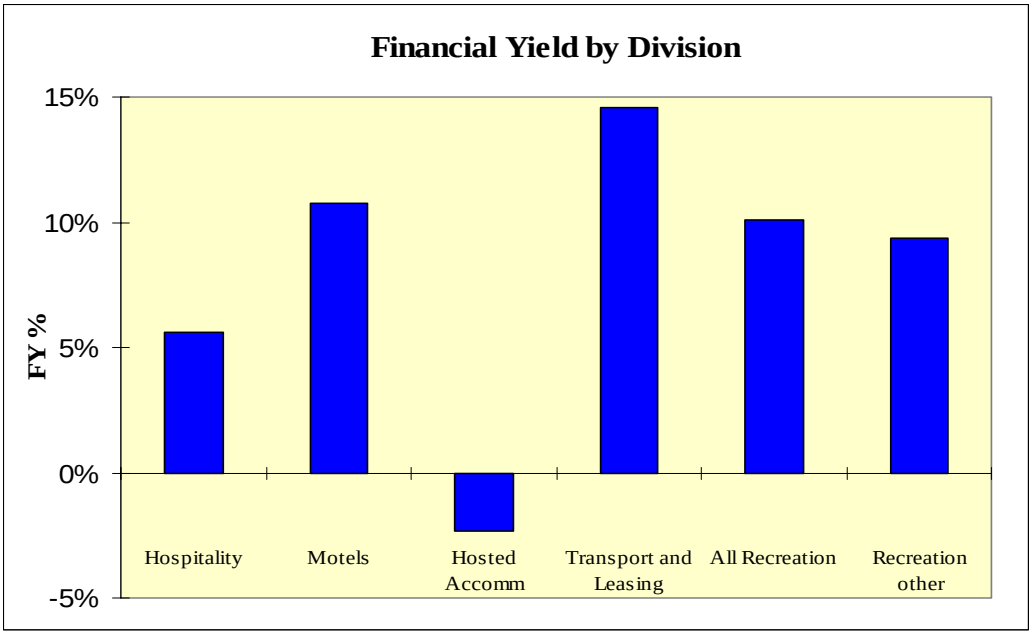
- Hospitality (all accommodation, food, beverage, pubs and taverns) (H57xxxxx ANZSIC codes)
- All Recreation sub-sectors (P9xxxxx ANZSIC codes)
- Recreation other (P933000)
- Motels (H571020 ANZSIC code),
- Hosted Accommodation (B&B) (H571030 ANZSIC code)
- Transport and Leasing (I612xxx & L 7741xx ANZSIC codes).

Table 5
Division Analysis

Division Analysis (Note only FY in range ±30% included)			
Division	**N**	**Survey Average FY**	**Survey FY Quartile**
Hospitality	28	5.6%	2
Motels	9	10.7%	3
Hosted Accomm	9	-2.3%	1
Transport and Leasing	6	14.6%	4
All Recreation	12	10.1%	3
Recreation other	8	9.4%	3

Transport and Leasing generated Quartile 4 FY's with motels and recreation services reporting Q3 performance and overall accommodation and hosted acommodation reporting Q2 and Q1 performances respectively. Average financial yield results for the selection of ANZSIC Classes are presented in Figure 1.

Figure 1
Financial Yield by Division



1.5 Estimations of Resource Productivity

The principal resources of labour and assets were examined.

Proprietors of small tourism enterprises are often the sole source of labour available to deliver their products. Salaries and wages to working proprietors (SWWP) were regarded as dividends in the calculation of FY to ensure consistent treatment of shareholders. However, if proprietors are absent they are usually replaced by locums who receive market remuneration. Measures of productivity include the degree to which profit relates to SWWP and the proportion of revenue that results in SWWP.

Table 6 reports the quartile results for the degree to which profit is generated in proportion to salaries and wages to working proprietors, those reporting 'no salaries' paid and the proportion of salaries and wages to revenues.

Table 6
Labour Productivity

Labour Productivity				
Overall Quartile	NOPAT Per $SWWP	# "No Salaries Paid"	$SWWP per $Revenue	Mode of "Business Activity"
Q1	$0.14	6	$0.09	Acc Small
Q2	$1.29	5	$0.14	Acc Small
Q3	$3.90	4	$0.08	Acc Small
Q4	$3.76	4	$0.11	Recreation
Mode value of "No Salaries"		Q1		

In these results, Q3 and Q4 enterprises generated superior levels of profit per dollar of remuneration. Proprietors reported remuneration levels between 8 percent and 11 percent of turnover – even though higher quartiles had capacity to take more. Some did not take any remuneration, more commonly the case in lower quartiles. The use of surpluses to fund expansion was preferred over increased remuneration.

Asset productivity was sharply contrasted in these SME interviews. The burden of supporting enterprise assets from cash-flows is indicated in Table 7. Q1 performers reported asset levels at twelve times turnover and Q4 performers reported asset levels slightly in excess of turnover.

Table 7
Business Productivity Indicators

Business Productivity Indicators			
Overall Quartile	Financial Costs/$Revenue	Total Costs/$Revenue	Assets/$Revenue
Q1	$0.21	$1.40	$12.84
Q2	$0.14	$0.87	$4.55
Q3	$0.23	$0.76	$3.73
Q4	$0.08	$0.67	$1.35

Other common business ratios are also reported by quartile in Table 7.

The Cost/Revenue business indicator, often known as the operating ratio, correlated well with FY. This ratio does not involve assets, but rather reflects effective cost control and revenue management. Containment of costs, effective prices, appropriate turnover and correspondingly lower reliance on expensive assets contributes to the efficiency of Q4 enterprises. Other Recreation services (generally out-door activities) enterprises dominated Q4, although the overall recreation group (including museums, recreational parks and zoos) was Q3.

In summary, FY performance was exemplified by asset efficiency and to some extent by labour efficiency.

1.6 Benchmark Comparisons

Two benchmark regimes have been applied to respondent financial data. The first regime examines FY and productivity indicators such as Costs/Revenue (C/R). The second regime examines FY in terms of its relationship with external financial market indicators such as the Base Lending Rate and published Weighted Average Costs of Capital.

Where confidentiality permitted, the results of the first benchmark regime are shown in Table 8.

Table 8
Survey Average Financial Yield

Division	Survey Average FY	N	NZ-Wide FY BM	% > NZ FY BM	NZ-Wide C/R BM	% > NZ C/R BM	Survey FY Quartile	Survey Average in NZ FY Decile
Motels	10.7%	9	>= 4.3%	89%	<= 0.933	89%	3	8
Hosted Accommodation	-2.3%	9	>= 2.7%	11%	<= 0.990	33%	1	4
All Accommodation	5.6%	28	>= 5.5%	54%	<= 0.939	64%	2	6
Transport & Leasing	14.6%	6	>= 4.9%	83%	<= 0.949	100%	4	8
All Recreation	10.1%	12	>= 10.9%	58%	<= 0.866	58%	3	8
Recreation Other	9.4%	8	>= 7.0%	50%	<= 0.984	63%	3	8

The NZ-Wide FY benchmark was established from an examination of enterprise performance via Statistics NZ's Datalab[4]. Table 8 identifies the FY and C/R benchmark thresholds and the proportion of the respondents that exceeded them. For example, the NZ-wide FY benchmark threshold for hosted accommodation is at least 2.7 percent and for C/R, not more than 0.990 where 11 percent of respondents surpassed the FY threshold and 33 percent achieved the C/R threshold. Comparisons between respondent quartile FY and NZ-wide decile FY are also reported.

1.7 Benchmarking Survey FY Performance and NZ-Wide Decile Position

Average sector FY performance exceeded the NZ-wide average for all respondents except Hosted Accommodation proprietors (H571030). The notable performers were Motels (HF&1020) and the aggregated sectors Transport and Vehicle Leasing (I612xxx & L7741xx) where over 80 per cent of respondents exceeded the NZ average FY relating to their sector. These sectors produced predominantly Q3 and Q4 respondents.

Comparison with the NZ-wide decile range of FY for each sector also highlighted the strong performance of Motels (H571020) where respondents were in the 9th decile. There were three other sectors in the 8th NZ-wide decile – consistent with their placement as Q3 performers in the survey. Two sectors were less consistent with their placement in the survey compared

4 Moriarty, J. P., Enterprise Benchmarks for NZ Tourism Characteristic and Tourism Related Industries 1999-2003, TRREC, Lincoln University, March 2007

with the NZ-wide decile range. Hosted Accommodation (H571030) was a Q1 performer in the survey which was lower than its placement in the 4th NZ decile. Hospitality (H57xxxx) was a Q2 performer which was slightly lower than its placement in the 6th NZ decile.

Overall, the survey results were broadly consistent with NZ-wide results except for Motels which returned significantly higher FY than their counterparts in the rest of NZ

1.7.1 Benchmarking Survey Cost/Revenue (C/R) performance

This benchmark reflects financial sustainability through overall operational effectiveness and although it does not involve asset levels, is a reliable indicator of FY. Whereas increasing FY indicates improving performance, decreasing C/R indicates increasing performance. Enterprises with C/R > 1 will find profitability elusive, whereas C/R values <0.9 have profit margins before tax of around 10 percent.

In the C/R comparison, results followed the FY trend with a few minor differences. Slightly more Recreation (P933000) and Hospitality (H57xxxx) enterprises exceeded the C/R benchmark compared with the FY benchmark. However many more Motel (H571030) enterprises exceeded the C/R benchmark in comparison with FY but the benchmark level was 0.99 – reflecting a level of performance just above break-even. These enterprises have high asset levels (see table 7) which accounts for their comparatively lower FY benchmark.

1.7.2 Benchmarking Survey FY against Market Performance Indicators

External stakeholders such as lenders or investors have many options within the economy to apply their investments and may be guided by prevailing market cost of debt. Comparisons between market benchmarks and survey results provide an indication of the competitiveness of surveyed sectors as a target for investment capital.

Two market benchmarks that are frequently used are:

- The NZ base lending rate (BLR) (the lending rate to qualifying new business borrowers by trading banks)
- Published Weighted Average Cost of Capital (WACC) – a composite of risk adjusted costs of debt and equity.

The most appropriate of these is the BLR as trading banks are the most likely source of debt funding for small and medium businesses. This rate is monitored and published by the Reserve Bank of NZ and its mean value over the period for which financial results were made available (April 2004 to March 2006) was 11.34 percent before tax [5] or 7.6 percent after tax.

WACC is a rate, like the BLR, that is constructed from the proportions of debt and equity funding in an enterprise, together with allowance for risk associated with investing in a particular sector of the economy (versus investing risk free with government bonds for example). Over the period March 2004 to March 2006, the WACC for NZ's Leisure and Tourism public listed companies ranged from 8.8 percent after tax to 9.3 percent after tax[6]. Simply applying these rates to small and medium enterprises would understate matters as

5 RBNZ, http://www.rbnz.govt.nz/statistics/exandint/B3/hB3.xls

6 Cost of Capital Report, Price Waterhouse Coopers, Online Report, http://www.pwc.com/Extweb/pwcpublications.nsf/docid/C97F5F036AA3DFEECA256C8500113B25

higher risk factors and lack of public transparency into business operations would inflate them. Accordingly a WACC in excess of 14 percent after tax would likely apply to small and medium tourism enterprises.

In this survey Q3 and Q4 FY performance greatly exceeds the 7.6 percent BLR benchmark and Q2 performance is equal to it.

If a market WACC benchmark of 14 percent were applied, some Q3 FY performers would equal it and all Q4 performers would surpass it.

Chapter 2
Discussion

This technical report has been developed to establish the reliability of both the interview sample and to examine the yield benchmarks that were derived from the TSA (Sector wide) analysis of financial yields. We have found that the interview sample generated FY in broad similarity to the results of a national sample for their corresponding sectors (Table 8). The exception was Hosted Accommodation respondents whose FY performance was less than that of the national sample.

Further analysis identified two principal predictors of financial yield: low asset/revenue and cost/revenue ratios were uniformly associated with high financial yield. Asset levels are generally intrinsic to the tourism product, strategic in nature, broadly comparable between local competitors but difficult to alter in the short term. The cost/revenue metric reflects tactical performance and proprietor diligence.

High performing enterprises demonstrated greater facility in ensuring that necessarily high priced assets were matched by commensurate revenue streams through superior sales and marketing – whilst maintaining efficient cost structures.

Less well performing enterprises would have achieved significant increases in FY solely through increased revenues. Further, but less significant improvement would also have resulted from cost efficiencies.

If measured FY performance reflected the typical annual performance of enterprises surveyed, about 80 per cent would be economically sustainable at a cost of capital equal to the prevailing base lending rate of 7.6 percent - which is reflective of the New Zealand average business survival ratio[7]. However, this proportion falls to about 24 per cent if the estimated weighted average cost of capital rate of 14 percent is used.

In conclusion, tourism enterprises generally have their asset levels determined by the nature of their product, but the defining attribute for those reporting high financial yield was the achievement of annual revenues that were broadly comparable to the value of those assets.

As noted this report should be read alongside the full set of business practices evident in the "business interviews report" where the broader context of financial yield and other 'lifestyle' considerations are discussed.

7 MED, SMEs in New Zealand: Structure and Dynamics – 2004, P18