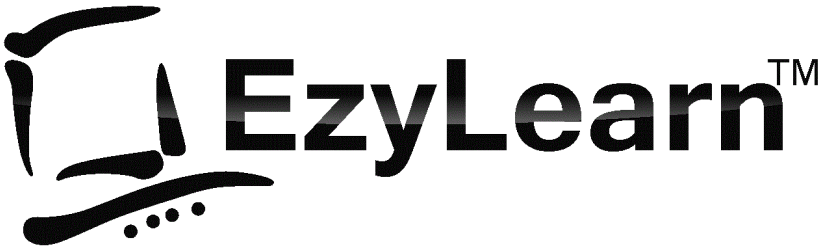

Employment and Productivity Training

Microsoft Excel Case Study Workbook 2017

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Microsoft Excel Case Study Workbook

This workbook will provide a guide on developing a financial forecast for an investment in a granny flat. It also includes a comparison of different investment options, taking into account the expected income and all expected costs.

Case Study

A lady in her 40's has purchased an investment property in Mount Druitt in Sydney. The land was a reasonable price and the house on it is fairly crappy and small but rentable and she has a tenant who has been living in the house for 3 years and is happy to stay on.

Because the lady owns the property and the size of the block is large enough to have a granny flat built on it, she wants to see the viability of borrowing the money to fund the entire development. The details about the property are:

First property:

- Investment property cost $300,000 in July of this current financial year (CY)
- The house on the land is very old and fully depreciated and valued at $80,000
- Small 2-bedroom house rents for $350 per week
- There is an old asbestos garage that needs to be removed for the development
- The lady owner is too busy working to manage the project so she'll be paying someone else to manage it
- The lady is excited to understand how she'll be able to claim depreciation as a deduction from her PAYG salary on the new build

Development costs and potential income:

- New double garage, including the slab is $20,000
- Demolish and remove the asbestos garage is $10,000
- Granny flat is $120,000 (includes all plumbing, drainage and power)
- Local council section 94 contributions are $10,000
- A town planner/designer to help with the DA to get the development through council is $10,000
- After looking through the for-rent section of the local area in an online property portal she understands that she'll be able to earn $320pw rent from the new granny flat

Funding and Loans:

- The owner currently owns 20% equity in the property
- She will be borrowing all of the money for the development so will incur mortgage insurance of $10,000 (added to the loan)
- Her mortgage broker has told her that she should be able to borrow up to about 97% of the value but will need to be able to cover all other transaction costs
- Her current interest rate is 5.5% on the investment property and she expects the same interest rate (interest only) for this development

Expected income:

- The owner understands that the area growing at 5%pa in the medium term (5 years)

Tasks

1. Accounting treatment of costs:
a) Of the development expenses what items need to be depreciated and which ones can be claimed as an expense?
b) What is the current yield on the investment property?
c) What is the total expected income on both properties after the development

2. Interest charges:
a) What is the total interest charge once the final development is completed expressed on a per annum basis?
b) Show the total annual interest expense as individual loans for each property
c) What is the net income after interest expense? What is that expressed as a yield?

3. Depreciation:
a) How much depreciation will the lady owner be able to claim each year? Show workings and show links to your research.
b) Will the owner be able to claim faster depreciation for some aspects of the project? Which ones? Name the top 3

4. Management Costs:
The owner is going to pay a local real estate agent 8% management fee and expects another 8% in costs for repairs and maintenance. How much will she be spending as an expense every year?

5. Comparison of Investment Options:
The owner can spend $80,000 to build a 1-bedroom granny flat for $240pw rental or spend $130,000 on a 2-bedroom granny flat for $320pw return. Which investment will provide a better rental return?

Microsoft Excel sheet “Case Study - Granny Flat Investment” will be used to calculate the expected income and costs of the proposed investment. It already contains the required formulas.

Accounting Treatment of Costs

Claims for depreciation and immediate deductions can only be made if the building was used to generate income. As a general rule, costs of constructing the new building should be claimed as depreciation. This means that the cost of the new garage would need to be depreciated, while the demolition of the old garage would be expensed.

Yield indicates the return on an investment. The current yield on the property is calculated in cell B18 based on the cost of the investment property and the expected rental income. The cost of the investment property is entered in cell B14 and the weekly rental income in cell B15.

	A	B
12		
13	**Part b**	
14	Investment property cost	$ 300,000.00
15	Rental income per week	$ 350.00
16	Annual rental income	$ 18,200.00
17		
18	Current Yield	6.07%

To determine the total expected income on both properties, you would need to take into account the annual income growth in the owner's area. The weekly rental income from the house and granny flat are entered in cells B21 and B22 respectively. The annual rent increase of 5% should go in cell B25. The income for the first year is calculated by multiplying the weekly income by 52. The annual income for successive years is determined by multiplying the annual rent increase by the previous year's income. Both relative and absolute cell referencing is used here.

	A	B	C	D	E	F	G
19							
20	**Part c**						
21	Weekly rental income from house	$ 350.00					
22	Weekly rental income from granny flat	$ 320.00					
23	Weekly Income	$ 670.00					
24							
25	Annual Rent Increase	5.0%					
26							
27		**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**Total Income in Medium Term**
28	Annual Income	$ 34,840.00	$ 36,582.00	$ 38,411.10	$ 40,331.66	$42,348.24	$ 192,512.99

Interest Expense

The annual interest expense is based on the loan amount for each property and the rate of interest. The individual loan amount in cells C37:C39 are calculated by multiplying the value of each property by the proportion borrowed. The proportion borrowed of 97% for the new garage and granny flat is entered in cell B33. The interest rate on the loans is entered in cell B34. The cell range B37:B39 contain the individual property values. The interest expense in cells D37:D39 is derived by multiplying the loan amount by the interest rate.

	A	B	C	D
30				
31	**Question 2**			
32	**Part a/b**			
33	Proportion borrowed	97%		
34	Interest Rate	5.50%		
35				
36	**Property**	**Value**	**Principal borrowed**	**Annual Interest Exp**
37	Investment Property	$ 300,000.00	$240,000.00	$ 13,200.00
38	New Garage	$ 20,000.00	$ 19,400.00	$ 1,067.00
39	Granny Flat	$ 120,000.00	$116,400.00	$ 6,402.00
40	**Total**	**$ 440,000.00**	**$375,800.00**	**$ 20,669.00**

Net income after interest expense in range B46:F46 is calculated by deducting the interest expense from expected rental income. Cells B44:F45 are referenced to the income and interest expense which has already been calculated. The yield in cell range B47:F47 is the net income expressed as a percentage of the value of the properties.

	A	B	C	D	E	F
41						
42	**Part c**					
43		**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Year 5**
44	Annual Rental Income	$ 34,840.00	$ 36,582.00	$ 38,411.10	$ 40,331.66	$42,348.24
45	Annual Interest Expense	$ 20,669.00	$ 20,669.00	$ 20,669.00	$ 20,669.00	$20,669.00
46	Net Annual Income	$ 14,171.00	$ 14,879.55	$ 15,623.53	$ 16,404.70	$17,224.94
47	**Yield**	**3.22%**	**3.38%**	**3.55%**	**3.73%**	**3.91%**

Depreciation

The owner will not be able to claim depreciation on the cost of the investment property as the house is very old and land is assumed to have an unlimited life. Because the garage and granny flat are newly constructed residential buildings, the owner will be able to claim depreciation at an annual rate of 2.5%. Depreciation for each property is calculated by multiplying the depreciation rate in cell E52 by each properties value in cells B53:B55.

	A	B	C	D	E
49					
50	**Question 3**				
51	**Part a**				
52	**Building**	**Value**	**Annual Depreciation**	*Depreciation Rate*	*2.5%*
53	Investment property	$ 300,000.00	$ -		
54	Garage	$ 20,000.00	$ 500.00		
55	Granny Flat	$ 120,000.00	$ 3,000.00		
56	**Total**	**$ 440,000.00**	**$ 3,500.00**		

The owner could be able to claim a higher depreciation rate of 4% if the properties are used for traveller accommodation.

Management Costs

The management fees and costs of repairs and maintenance are based on a proportion of the expected income which is entered in cells B65:B66. These expenses would increase with the rise in rental income.

	A	B	C	D	E	F
62						
63	**Question 4**					
64		Rate				
65	Management Fee	8%				
66	Repairs & Maintenance	8%				
67						
68		**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Year 5**
69	Management Fee	$ 2,787.20	$ 2,926.56	$ 3,072.89	$ 3,226.53	$ 3,387.86
70	Repairs & Maintenance	$ 2,787.20	$ 2,926.56	$ 3,072.89	$ 3,226.53	$ 3,387.86
71	**Total Expenses**	**$ 5,574.40**	**$ 5,853.12**	**$ 6,145.78**	**$ 6,453.06**	**$ 6,775.72**

Comparison of Investment Options

Sheet2 of the Excel spreadsheet is used to make a comparison of two investment options.

The expected rental income in cells B6:B7 and predicted growth in the owner's area in cell E5 are used to calculate total income.

	A	B	C	D	E	F	G
2							
3	**Question 5**						
4	**Income**						
5		Weekly Rent		Annual Rent Increase	5%		
6	Granny Flat - 1 bedroom	$ 240.00					
7	Granny Flat - 2 bedrooms	$ 320.00					
8							
9		**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**Total Income in Medium Term**
10	Granny Flat - 1 bedroom	$ 12,480.00	$ 13,104.00	$13,759.20	$ 14,447.16	$15,169.52	$ 68,959.88
11	Granny Flat - 2 bedrooms	$ 16,640.00	$ 17,472.00	$18,345.60	$ 19,262.88	$20,226.02	$ 91,946.50

The annual interest expense is based on the amount borrowed and interest rate on the loan.

	A	B	C	D
12				
13	**Interest Expense**			
14	Proportion borrowed	97%		
15	Interest Rate	5.00%		
16				
17	**Property**	**Value**	**Principal borrowed**	**Annual Interest Exp**
18	Granny Flat - 1 bedroom	$ 80,000.00	$ 77,600.00	$ 3,880.00
19	Granny Flat - 2 bedrooms	$ 130,000.00	$126,100.00	$ 6,305.00

Depreciation would be calculated at an annual rate of 2.5% on the construction cost.

	A	B	C	D
20				
21	**Depreciation**			
22		**Annual Depreciation**	*Depreciation Rate*	*2.5%*
23	Granny Flat - 1 bedroom	$ 2,000.00		
24	Granny Flat - 2 bedrooms	$ 3,250.00		

Management fees and repairs and maintenance costs are worked out in the same way as before.

	A	B	C	D	E	F
25						
26	**Other Costs**					
27		Rate				
28	Management Fee	8%				
29	Repairs & Maintenance	8%				
30						
31		**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Year 5**
32	Costs for Granny Flat - 1 bedroom	$ 1,996.80	$ 2,096.64	$ 2,201.47	$ 2,311.55	$ 2,427.12
33	Costs for Granny Flat - 2 bedrooms	$ 2,662.40	$ 2,795.52	$ 2,935.30	$ 3,082.06	$ 3,236.16

To determine the net income of each investment option, you would deduct the interest expense, depreciation and other costs from the expected rental income. The average yield is calculated by averaging the total net income over five years expressed as a percentage of the property value.

	A	B	C	D	E	F	G	H
34								
35	**Net Income**							
36		**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**Net Income in Medium Term**	**Average Yield**
37	Granny Flat - 1 bedroom	$ 4,603.20	$ 5,127.36	$ 5,677.73	$ 6,255.61	$ 6,862.40	**$ 28,526.30**	**7.1%**
38	Granny Flat - 2 bedrooms	$ 4,422.60	$ 5,121.48	$ 5,855.30	$ 6,625.82	$ 7,434.86	**$ 29,460.06**	**4.5%**

You can then determine which investment option will provide a better return.

Conclusion

Congratulations on getting through this workbook. You can also use this spreadsheet to make your own investment decisions.

For more course content, please refer to EzyLearn Microsoft Excel Training Courses 302, 303 and 306.