

BUSINESS REPORT

Financial Management & Planning

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Introduction

The company Unisan specialises in providing recycling solutions for medium to large organisations. Offering solutions for both front-of-house and back-of-house environments. Unisan's recycling stations help empower workspace recycling and this is achieved through engaging graphics which enables to user to successfully segregate their waste item in the correct waste stream. If done successfully, this can ultimately lead to better recycling rate for the client. Unisan currently outsource all printing services from several suppliers across the UK. With the increasing volume and demand, Unisan are now considering bringing this aspect of the business in-house which will bring the company several benefits.

The main aim of this business report is to analyse whether Unisan should buy or lease a printing machine which will allow the company to produce bespoke graphics in-house. Ranging from backboards, worktop graphics, door graphics and bespoke customer graphics, the graphics are very important aspect of Unisan's recycling stations. Additionally, this report aims to understand the benefits and any issues that may arise from implementation. On top of that, assessing the profitability of the project will also be covered to assess whether the project will bring financial benefits to the company.

Benefits & Challenges

Purchasing or leasing a printing machine will bring Unisan several benefits, but it is also important to understand the challenges that may arise so that the company will know what to expect after implementation.

a. Benefits

- a. Commercial
 - i. Lead times will improve more than half which will allow Unisan to produce graphics and deliver to customer quicker
 - ii. Increase Unisan's unique selling point by being able to offer bespoke graphic solutions
 - iii. Bringing an in-house printing machine can potentially open up new areas of revenue for the company
- b. Economic
 - i. Significantly reduce Unisan's cost from printing, material, packaging to delivery which will ultimately increasing profit from sales
- c. Environmental
 - i. Reduce transportation emissions
 - ii. Reduce packaging waste
 - iii. Reduce overall carbon footprint of USN's products
- d. Social & Organisational
 - i. Improve in-house capabilities
- e. Technological
 - i. Eliminate delays through efficient manufacturing
 - ii. Better stock control
 - iii. Can be used for prototyping

b. Challenges

- a. Staffing issues
 - i. Lack of expertise to operate new machine

- ii. USN unable to afford additional staff so will have to be operated by existing staff
 - iii. Time capacity can be an issue, time allocation must be discussed amongst suitable employees before going ahead with the project
- b. Limited warehouse space
 - i. There is a limited amount of space in the warehouse
- c. Maintenance
 - i. Down time can result in delays
 - ii. Time consuming process
 - iii. Health and safety implications
 - iv. Consumables management

Timeline

The machine is readily available online and can be ordered quickly. With an estimated time of 4 weeks to completely setup the machine up and running. Product trials may take in place which may delay this slightly.

Estimated timeline: Delivery (2 weeks), Installation (1 week), Staff training (2 weeks).

Rationale

- a. Payback period in less than 2 years
- b. Positive Net Present Value (NPV) from a Weighted Average Cost of Capital (WACC) of 10%
- c. Profitability Index of 1 or greater
- d. Internal Rate of Return of 30% or greater
- e. Other factors
 - a. Ease of operation
 - b. Limited warehouse space
 - c. Must retain product quality at a high standard or improve

Financial Model

	Buy – Option A	Lease – Option B
Payback Period	0.68 Years	0.77 Years
Net Present Value	£39,074	£37,866
Internal Rate of Return	146%	127%
Profitability Index	4.95	4.33
Benefit-Cost ratio	4.60	3.90
Accounting Rate of Return	214.3%	188%

The project's financial model has been calculated using a Weighted Average Cost of Capital of 10% and a £2,000 residual value using the straight-line depreciation method. The payback period for both options is less than a year which can mean that the project bears less risk for the company. By buying, the company can breakeven in just over 8 months. The Net Present Value (NPV) are

also showing healthy and positive figures which indicates that the project will be profitable either way (Fernando, 2022). Both options also show a high Internal Rate of Return which is great. This implies a high profit percentage after taking into account the present value of the project. The Profitability Index for both projects are also very attractive and shows great profit potential. To put this into perspective for every £1 that Unisan invests, they should expect £4.95 return if they were to buy. Both Benefit-Cost Ratio are well above 1 which makes both options acceptable. This shows a great overall value for money of the product which should

be expected to deliver positive net present value to Unisan. The company should easily earn the required Rate of Return, the higher the value of the average Rate of Return the greater the return is on the investment.

Funding Options

There's pros and cons when choosing whether to use internal or external financing. Using external financing can be a good option if preserving internal resources is required for other projects (Root III, 2019). As Unisan is continually growing through investment on innovation, funding the new machine must be checked against the company's yearly budget. How much capital is available internally is a factor to consider when weighing up how to best finance the new equipment (GSM, 2019).

Internal funding keeps all the power within the company (Leonard, 2018). The potential savings that can be made by investing in the machine will put Unisan in an ideal position to buy. With the short payback period and high rate of return on investments in mind, the risk is very minimal and paying interests can be avoided. It is advisable for Unisan to use retained profits if available to fund the machine to minimise the overall cost.

Conclusions & Recommendations

With the amount of potential savings that can be made, it is recommended for Unisan to go ahead with the printing machine project. Both buying options satisfies the business rationale whilst providing additional benefits to the company. The machine can be paid back in less than a year which lowers the risk for USN and can immediately increase profit margins and improve efficiency.

The proposal is to **buy the machine**.

Unless Unisan want to replace the machine on a short-term basis then leasing would not be the best option. Ownership has a cheaper overall cost with the added benefits of owning the machine at the end of the 5-year project term. The machine is expected to work beyond this point but there is also an option to sell the machine to get some of the investment back. The increasing volume and demand will only continue to rise as it is a vital aspect of Unisan's business. It will also the company to build their portfolio of hard assets and give them total control as to how equipment is used and maintained.

In terms of expertise to run the machine, Unisan's in-house designers could be trained to operate this with the support of the warehouse staff. Once trained, it is a simple operation as the machine does not have to be supervised once it has been set to print and the machine will cut the graphics in the same process, the warehouse staff can then collect the finished graphics.

This can give Unisan a competitive advantage over their competitors giving them greater capabilities in-house. It could also open up new areas of revenue in upselling more graphics with existing bins or simply selling recycling graphics to their clients. By producing and selling, Unisan can significantly increase their profits during the 5-year project period.

Appendix

Cost analysis:

Graphic 1 (150x50mm)		Graphic 2 (250x100mm)	
Quantity	38	Quantity	173
Cost to buy per sticker	£0.68	Cost to buy per sticker	£1.83
Cost to buy x38	£25.84	Cost to buy x173	£316.68
Cost to print per sticker	£0.02	Cost to print per sticker	£0.16
Cost to print x38	£0.76	Cost to print x173	£27.68
Profit	£25.08	Profit	£289
Profit %	97.1%	Profit %	91.3%
Cost of sales	£2.9%	Cost of sales	8.7%
		Avg profit %	94.2%
		Avg cost of sales %	5.8%

Spent with supplier		What could've been saved
2020	£19,241	£18,125.02
2021	£19,377.73	£18,253.82
2022	£23,275.96	£21,925.95
Estimated cost		Potential savings
2023 - 2027	£25,000 per year	£23,550 per year
5 Years		

Cost of project:

Buy – Option A	
Machine cost	£7,750
Delivery	Included
Training	£500
Installation	£250
Total initial investment	£8,500
Recurring Cost (Annual) – Option A	
Consumables	£3,000
Running cost	£1,250
Annual maintenance contract	£500
Labour	£6,250
Total estimated annual cost	£11,000
Total recurring cost over 5 years	£55,000
Lifespan	
5 Years	

Savings per year – Option A	
Potential savings per year	£23,550
Recurring annual cost	£11,000
Savings per year	£12,550

5 Year Lease – Option B	
Lease Term	5 Years
Weekly Payment	£46.10
First Payment	£199.75
59 Monthly Payments	£199.75
Total Cost	£11,985
Tax Relief @ 19%	£2,277.15
Net Cost of Finance	£9,708
Recurring Cost (Annual) – Option B	
Total estimated annual cost	£11,000
Total recurring cost over 5 years	£55,000
Lifespan	
5 Years	

Savings per year – Option B	
Potential savings per year	£23,550
Recurring annual cost	£11,000
Savings per year	£12,550

Buying financial analysis:

Buying		Year					
	Investment	1	2	3	4	5	
Present Value	(8,500)	12550	12550	12550	12550	12550	
Payback	0.68	Manually Calculated					
Discount Rate (WACC)	10.00%						
Denominator	1.00	0.870	0.756	0.658	0.572	0.497	
Future Value	(8,500)	10,918.50	9,487.80	8,257.90	7,178.60	6,237.35	
NPV	33,580	33,570					
NPV (Excel Calculated)	39,074						
Internal Rate of Return		146%					
		42,080.15					
		8,500					
Profitability Index		4.95					
Benefit-Cost Ratio		4.60					

Residual value	£2,000.00
	£62,750.00
	£6,500.00
	£56,250.00
	£8,500.00
	£2,000.00
	£5,250.00
	£56,250.00
	£11,250.00
	£5,250.00
Accounting Rate of Return	214.29%

Leasing financial analysis:

Leasing	Year					
	Investment	1	2	3	4	5
Present Value	(9,708)	12550	12550	12550	12550	12550
Payback	0.77	Manually Calculated				
Discount Rate (WACC)	10.00%					
Denominator	1.00	0.870	0.756	0.658	0.572	0.497
Future Value	(9,708)	10,918.50	9,487.80	8,257.90	7,178.60	6,237.35
NPV	32,372	32,362				
NPV (Excel Calculated)	37,866					
Internal Rate of Return		127%				
		42,080.15				
		9,708				
Profitability Index		4.33				
Benefit-Cost Ratio		3.90				

Residual value	£2,000.00
	£62,750.00
	£7,708.00
	£55,042.00
	£9,708.00
	£2,000.00
	£5,854.00
	£55,042.00
	£11,008.40
	£5,854.00
Accounting Rate of Return	188.05%

Model:

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