

# [Danforth donnalley laundry products company integrative problem](https://assignbuster.com/danforth-donnalley-laundry-products-company-integrative-problem-essay-samples/)

[](https://assignbuster.com/)[Finance](https://assignbuster.com/essay-subjects/finance/)

Danforth Donnalley Laundry Products Company Integrative Problem Cash flows reflect the flows of cash from and into a business entity. Cash flows can either occur in the operating, financing and investing activities. The use of debt to finance Danforth and Donnalley Laundry Products Company falls under financing activities. Debts taken by companies to finance its activities are often paid back with an interest. In this case, if the company’s project was financed through a debt, the company would make interest payments. These interest payments represent flows of cash from the company and should be considered cash flows (Brigham & Ehrhardt, 2011).   
NPV =  (R1 + R2 + R3 + ...  ) /{( 1 + i )1( 1 + i )2( 1 + i )3 } − Initial Investment   
Initial investment = 2, 000, 000 + 500, 000 = 2, 500, 000   
Rate of Discount = 10%   
PV factor, year 1 = 1/ (1+ 10%) ^1 ≈ 0. 909   
PV factor, year 2= 1/ (1+ 10%) ^2 ≈ 0. 826   
PV factor, year 3 = 1/ (1+ 10%) ^3 ≈ 0. 7513   
PV factor, year 4 = 1/ (1+ 10%) ^4 ≈ 0. 683   
PV factor, year 5 = 1/ (1+ 10%) ^5 ≈ 0. 6209   
PV factor, year 6 = 1/ (1+ 10%) ^6 ≈ 0. 5646   
PV factor, year 7 = 1/ (1+ 10%) ^7 ≈ 0. 5131   
PV factor, year 8 = 1/ (1+ 10%) ^8 ≈ 0. 4665   
PV factor, year 9 = 1/ (1+ 10%) ^9 ≈ 0. 4241   
PV factor, year 10 = 1/ (1+ 10%) ^10 ≈ 0. 3855   
PV factor, year 11 = 1/ (1+ 10%) ^11 ≈ 0. 3505   
PV factor, year 12 = 1/ (1+ 10%) ^12 ≈ 0. 3186   
PV factor, year 13= 1/ (1+ 10%) ^13 ≈ 0. 2896   
PV factor, year 14 = 1/ (1+ 10%) ^14 ≈ 0. 2633   
PV factor, year 15 = 1/ (1+ 10%) ^15 ≈ 0. 2394   
Exhibit 1   
Year   
Cash flow   
Present Value Factor   
Present value of Cash Flows   
1   
280, 000   
0. 909   
254, 520   
2   
280, 000   
0. 826   
231, 280   
3   
280, 000   
0. 7513   
210, 364   
4   
280, 000   
0. 683   
191, 240   
5   
280, 000   
0. 6209   
173, 852   
6   
350, 000   
0. 5646   
197, 610   
7   
350, 000   
0. 5131   
179, 585   
8   
350, 000   
0. 4665   
163, 275   
9   
350, 000   
0. 4241   
148, 435   
10   
350, 000   
0. 3855   
134, 925   
11   
250, 000   
0. 3505   
87, 625   
12   
250, 000   
0. 3186   
79, 650   
13   
250, 000   
0. 2896   
72, 400   
14   
250, 000   
0. 2633   
65, 825   
15   
250, 000   
0. 2394   
59, 850   
Total present value = 2, 250, 436   
Net Present Value = 2, 250, 436 – 2, 500, 000 = - 249, 564   
Exhibit 2   
Year   
Cash flow   
Present Value Factor   
Present value of cash flows   
1   
250, 000   
0. 909   
227250   
2   
250, 000   
0. 826   
206500   
3   
250, 000   
0. 7513   
187825   
4   
250, 000   
0. 683   
170750   
5   
250, 000   
0. 6209   
155225   
6   
315, 000   
0. 5646   
177849   
7   
315, 000   
0. 5131   
161626. 5   
8   
315, 000   
0. 4665   
146947. 5   
9   
315, 000   
0. 4241   
133591. 5   
10   
315, 000   
0. 3855   
121432. 5   
11   
225, 000   
0. 3505   
110407. 5   
12   
225, 000   
0. 3186   
100359   
13   
225, 000   
0. 2896   
91224   
14   
225, 000   
0. 2633   
82939. 5   
15   
225, 000   
0. 2394   
75411   
Total Present Value of Cash Flows = 2, 149, 338   
Net Present Value = 2, 149, 338 – 2, 500, 000 = - 350, 662   
Internal Rate of Return   
IRR is the discounting percentage at which NPV is zero.   
The IRR for exhibit one is 8. 56%   
The IRR for exhibit two is 6. 32%   
Profitability Index   
Profitability Index = Present Value of Future Cash Flows/Initial Investment Required   
Exhibit one = 2, 250, 436/ 2, 500, 000   
= 0. 9001744   
Exhibit two = 2, 149, 338/ 2, 500, 000   
= 0. 8597352   
I would not accept this project. It has a low profitability index and introduction of a similar product by a competitor would profoundly affect the profitability of the company (Brigham & Ehrhardt, 2011).   
References   
Brigham, E. F., & Ehrhardt, M. C. (2011). Financial management: Theory and practice. Mason, OH: South-Western Cengage Learning.