

# New heritage doll essay sample

[Finance](#), [Investment](#)



1. Compute the Free Cash Flows for the years 2010 to 2020 for both projects

See excel File attached.

Assumptions:

\* We assumed the required working capital in table 2 and 3 is the amount required in 2010, for further years we computed the WCR based on the ratio's of minimum cash balance, number of days sales outstanding, inventory turnover and days payable outstanding (deducting the depreciation as instructed) \* We assumed the SG&A and fixed production costs were project specific and therefore included them in the FCF analysis 2.

Compute the NPV of both projects. Which would you recommend? What if they are not mutually exclusive? NPVMMDC = 7, 150

NPVDYOD = 7, 298

Based solely on the NPV analysis we would suggest to implement the DYOD project as it has a higher NPV. If both projects weren't mutually exclusive, we would suggest implementing both as both have a positive NPV. 3. Compute IRR and payback period for both projects. Based on each criterion, which project would you recommend? If this differs from NPV analysis, explain the deviation? For MMDC:

IRR = 23, 99%\*

Payback period = 8 years (assuming the cash flows occur at year end, as instructed) For DYOD:

IRR = 18, 33%\*

Payback period = 11 years (assuming the cash flows in 2021 is indeed

CF2020\*1, 03) \*For the IRR analysis we drafted a NPV sensitivity graph in

order to make sure that there are not 2 possible values for IRR. These graphs

<https://assignbuster.com/new-heritage-doll-essay-sample/>

are to be found in the excel file attached. Based on these criteria we would recommend investing in the MMDC project as IRR is higher and payback period is shorter. These analyses differ from the NPV analysis as these methods penalize projects with high initial investments and positive cash flows that occur later in time. 4. Describe possible risks and advantages that one might need to take into account but are not considered by NPV analysis?

Risks:

\* The allocation of a limited amount of capital available within the company, there may be an opportunity cost for the capital allocated to these projects rather than to projects of other departments that have even higher returns \*

According to the case info, lasting brands in the doll business are rare, therefore the positive outlook during the first 10 years and a terminal value based on an assumption of a 3% perpetual growth rate could possibly be unrealistic \* NPV solely looks at the company's internal financial side of the project.

We might also want to take competitor actions into account and how these may affect our decision making (e. g. perhaps first mover advantages in the design your own doll project might be very positive, but if a competitor introduces a similar value proposition between the investment decision and market introduction (2 years later), this may have a negative impact on the projects profitability) \* We have not taken cannibalization into account for the DYOD project. It may actually move customers away from the standard doll. Advantages

\* We are not looking at which projects may have a positive impact on the company's other business units. Perhaps one project stimulates the retail of licensing business more than the other. \* The MMDC project could allow you to start using fashion outlets as an additional sales channel for the clothes and even increase sales of all dolls in the process \* The MMDC project will be moving in another product category (fashion) and may create a brand name in that category. People that hadn't heard from Heritage as a doll manufacturer may therefore get to know the company and purchase dolls in the future

5. List two assumptions that you think are prone to error and explain your choice For this question we tried to identify the assumptions that have the highest possible impact on the NPV analysis.

a. Terminal value of the project.

The project makes the assumption that cash flows in 2021 and onwards will continue into eternity growing at a rate of 3%. Although this number is the expected growth rate of the industry, this may be quite high especially as the case states that lasting brands in the doll industry are rare. The terminal value makes up a significant a part of the NPV (without it, the NPV of both projects would actually be negative). Although we do not think the terminal value should be ignored, we should however be aware that it is prone to error. It could also change our decision to go for one or the other project, especially if the NPV values are close to one another.

b. Discount factor

The discount factor has a big impact on the NPV analysis, especially for projects with a long time frame. This means that small estimation errors in the discount factor could possibly have big effects on the NPV. Since the NPV

for the two potential projects are quite close, a small estimation error in discount factor might lead to wrong business decision. 6. Assume the two projects also compete with projects from other divisions for a limited amount of capital. Which investment criterion would you use to communicate the projects to the capital budgeting committee? Explain why. Which project (MMDC or DYOD) is preferable based on this criterion.

We would use the profitability index to communicate the projects to the committee. This index allows us to compare our projects with those of other divisions based on how efficiently they use the limited amount of capital available. We calculated the PI index for both projects using the formula  $PI = \text{NPV (incl. initial investment)} / \text{initial investment}$ . For initial investment, we used the initial cash outflow (including capex, initial working capital investment, and after-tax upfront R&D and marketing expenses). The PI indexes are:

$PI_{MMDC} = 2.37$  (Formula used:  $\text{NPV (incl. initial investment)} / \text{initial investment}$ )  
 $PI_{DYOD} = 1.17$  (Formula used:  $\text{NPV (incl. initial investment)} / \text{initial investment}$ )  
Based on these indexes we would choose to implement project MMDC as it makes better use of the most limited resource of the company, namely capital.

[ 1 ]. All amounts \$ in thousands

Excel Calculations: Working Capital Assumptions, Working Capital, Cash Flows, Free Cash Flows, PV of Cash Flows, Terminal Value, WACC, NPV, IRR,

Payback Period, Discounted Payback Period (For both projects- 1. Match My Doll Clothing Line Expansion 2. Design Your Own Doll) Abstract:

Match my doll clothing line currently comprises of matching doll and child clothing and accessories for warm weather only. This line is very profitable because of its popularity and it is the in-fashion thing now-a-days. Daughters of a few celebrities have been found wearing these outfits and trendy magazines include these outfits in their hot section which make them highly desirable by the general populace. Expanding this line to cater to all seasons is a lucrative opportunity. The cash flows of this project stabilize after the first three years of operation i. e. the product line matures in 3 years of the operation. Also, the net working capital requirement of this project stabilizes in three years of operation, and is much lower as compared to the other project.

Design Your Own Doll project targets the existing customers of the company, who already own one of the dolls of the company. The project calls for the involvement of the customer in the production process of the dolls and allows the customer to make a doll of her own choice. This would allow the customer to choose the skin, clothing and accessories for the doll as she likes, making a one-of-a-kind doll. There is also a significant working capital requirement for this project because of high requirement for half-finished dolls at all times. Also, the cash flows of this project stabilize after 6 years of initial investment (4 years after the production starts). The company has no prior experience in such projects and the project calls for incorporation of

new technology. There is also a risk that the web-based interface may not work properly resulting in the loss of loyal customers.

Word Writeup

Comparison of the Business Cases

1. Match My Doll Clothing Line Expansion

2. Design Your Own Doll

NPV analysis

Internal Rate of Return

Payback Period Analysis

Discounted Payback Period Analysis

Analysis of additional information

Recommendations