

# INFO-420

## Software Project Management

### Assignment #1

### Group 6

### Business Case

### For

## BHYR Furniture Retail



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## 1. Executive Summary

Due to the introduction of the current pandemic (COVID-19), BHYR Furniture Retail must revamp the way they operate. This business case brings three different courses of action into consideration to address the problems that might potentially hinder the financial progress of BHYR Furniture Retail. The three options are different ways BHYR Furniture Retailer can utilize services provided by ReVamp.

**Goal and Strategy:** BHYR Furniture Retailer is looking to increase profit margins and expand its customer base. This will be accomplished by partnering with ReVamp, an experienced contractor in 3D modeling to provide a new service that digitally assists with home renovation.

**Measurable Organizational Value:** The measurable organizational value will aim to fulfill BHYR Furniture Retailer's goals and strategy. It will be successful if ReVamp can meet the objectives set by BHYR Furniture Retail in the designated time period, and deliver a service that will provide a new experience of value for home renovation to users.

**Options and Alternatives:** ReVamp's service can be provided in a number of ways. In summary, the alternatives and analysis sections of this report discuss the following different ways that BHYR's problem can be addressed:

1. A mobile app/website which enables a completely digital experience where users can shop, return, and request exchange.
2. A web-application where users shop, return, and request exchanges, with the dedicated 3D modeling service.
3. A warehouse style location equipped with specialized equipment purchases, returns, and exchanges.



## 2. Introduction

**Background:** One of the greatest obligations that businesses have is to adapt to their consumers— and due to the recent outbreak of COVID-19, this has only become more prevalent. BHYR Furniture Retail will have to adapt by using services provided by ReVamp.

**Current situation:** Recently, there has been a dramatic increase of recreational activities, but due to the nature of the pandemic which is prompting more and more people to stay at home, BHYR Furniture Retailer's sales have decreased. BHYR Furniture Retailer is looking to increase their sales again by incorporating a safe and yet robust customer experience.

**Problem:** BHYR furniture retailer has seen a recent trend of declining sales and visits. The nature of BHYR before the pandemic was a physical warehouse location, where customers come and go. However, the pandemic has changed that, minimizing the number of customers that come to BHYR retail stores.

**Opportunity:** BHYR Furniture Retail has the chance to adapt to the current environment and change the way customers can use services and buy products. Additionally, BHYR has the chance to optimize their shopping experience and try to reach out to a wider customer base.

**Project's MOV:** This project will be successful if BHYR can increase profit margins by 30% within a year of this project's completion.

**How achieving MOV will help organization:** Achieving the MOV will help the company regain sales numbers and continue to be fully operational during the pandemic.

**Objective of this business case:** The objective of this business case is to explore the directions ReVamp can go and the ways it can benefit BHYR Furniture Retailer. The business case will weigh the costs and benefits and analyze the risks and anticipated gains.

### 3. Alternatives

BHYR Furniture Retailers are looking at several alternatives offered by ReVamp that best meet the organization's values, as well as counter the problems that the pandemic has introduced.

**Alternative 1: Mobile Application/Website:** The base case would be a mobile application and a website that would be available for all consumers with smart devices or those that wish to access through a web browser. Both the website and mobile application would offer the viewing of the BHYR's catalog to purchase from. A social media feature is also available where users can see what is trending between other users from BHYR services. Additionally, the mobile application also offers an augmented reality experience. This will allow the consumer to see the furniture through the camera of a mobile device in real-time.

**Alternative 2: Web application:** The second alternative is a website-only platform that will allow the customers to be able to browse the full inventory of BHYR. This would also include a 3D modeling function that acts as a shopping cart, which takes in user-uploaded photos to create a digital living space within the augmented reality. Users can freely customize their digital living space with furniture available throughout the catalog, as well as purchase any of the items they have added.

**Alternative 3: Brick and Mortar distribution facility:** The final alternative would be a warehouse style location equipped with handheld scanners and kiosks allowing customers to upload photos to create their dedicated digital living space. Users can browse the warehouse scanning items, add items to their cart, to which they can customize and rearrange in their digital space via the kiosks. These locations are by appointment, and have a maximum capacity of ten customers.



## 4. Analysis of alternatives

### Alternative 1: Mobile Application/Website

Project ROI:  $(\$430,000 - \$300,000)/\$300,000 = 43\%$

Net Present Value: **\$735,000**

	Year 0	Year 1	Year 2	Year 3
<b>Total Cash Inflows</b>	\$0	\$215,000	\$430,000	\$450,000
<b>Total Cash Outflows</b>	\$300,000	\$20,000	\$20,000	\$20,000
<b>Net Cash Flow</b>	\$300,000	\$195,000	\$410,000	\$430,000

Benefits/Risks: With an expected cost at \$300,000 and expected benefit at \$430,00, a mobile application/website is a completely feasible alternative, as it has a 43% return on investment. It also has an estimated NPV of \$735,000 within three years, which is well over the initial cost.

### Alternative 2: Web application

Project ROI:  $(\$400,000 - \$275,000)/\$275,000 = 45\%$

Benefits/Risks: With an expected cost at \$275,000 and expected benefit at \$400,000, a web application is a completely feasible alternative, as it has a 45% return on investment.

### Alternative 3: Brick and Mortar distribution facility

Project ROI:  $(\$430,000 - \$500,000)/\$500,000 = -14\%$

Benefits/Risks: With an expected cost at \$500,000 and expected benefit at \$430,000, the brick and mortar distribution facility is the least feasible alternative, as it has a -14% return on investment. Because operating costs of a physical location are so high, as well as the factor that due to COVID-19, there may be less customers, it is completely infeasible.



## 5. Recommendation

Across the board, the best course of action that BHYR Furniture Retailer could take would be alternative number one, which is the implementation of a website and mobile application for purchasing furniture.

Based on the analysis of alternatives, the first alternative is a more cost efficient solution of the three, allowing for a \$300,000 investment in year zero to make profit by year two. Alternative one allows for a 43% return on investment. Although alternative two, a web application, has a slightly higher return on investment, the overall worth of alternative one would be higher in the long run. Due to the fact that alternative 3, a brick and mortar distribution facility has a negative return of investment (partially due to the extremely high operation costs), it is not in the running for a feasible alternative at all.

Additionally, the conjunction of a mobile and website implementation would allow for an enhanced customer experience along with reaching out to a wider consumer base. A mobile application and website allows for a contactless purchasing experience, similar to alternative two, a web application, but it would leave room for more features which might not be addressed because of the web application's constraints. The contactless purchasing experience would also be a key factor which could potentially set out BHYR from the rest of its competitors during the pandemic, as it would introduce a safer and creative platform for customers to choose their desired furniture parts. This includes a social media integration and augmented reality product visualization, resulting in a better user experience. Overall, the mobile application and website implementation meets all of the organization's objectives in comparison to the other alternatives, and would be the best course of action given the presence of the pandemic.

## References

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