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Assignment 1: Financial Analysis

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2. After doing financial analysis and strategy evaluations for three options, the metrics for each option are as follows:

Option 1. Build In-House: NPV: $1.98M, ROI: 88%, IRR: 24%

Option 2. Collaborate/Joint Venture: NPV: $2.41M, ROI: 84%, IRR: 23%

Option 3. Do Nothing/Advertise: NPV: $0.118M, ROI: 200%, IRR: 66%

Based on the data above, I would recommend option 1 Build In-House for the following reasons:

1. Budget concern & the amount of cash flow access: Although option 2 has the highest NPV, its initial investment cost is too high. The advertising cost for option 3 is the lowest, the NPV is too small though. On the contrary, option 1 has a substantial NPV, suggesting our company can have more cash flow than option 3. Meanwhile, a smaller investment for option 1 at the beginning compared to option 2 implies we don’t have to spend much money for the investment which would cause high risks in different financial dimensions, such as higher opportunity cost, less capital diversification, etc.
2. Higher return: The ROI and IRR for option 1 are considerable and even higher than option 2, indicating this strategy is much more profitable.
3. Adapt to market change rapidly: Option 1 is aligned with the CEO’s belief in developing our company’s own R&D capabilities so that we can catch the quick pace of change in technology and therefore, follow and evolve the latest software technology, attracting more clients.
4. Keep intellectual property in-house: Our company can retain exclusive rights to the technologies that are developed by ourselves. Moreover, applying for patents can generate significant revenues by selling and increase the brand image.

3. If in-house build will be delayed by 9 months, the adjusted metrics are as follows:

Option 1. Delay Build In-House: NPV: $1.79M, ROI: 54%, IRR: 14%

Option 2. Collaborate/Joint Venture: NPV: $2.41M, ROI: 84%, IRR: 23%

Option 3. Do Nothing/Advertise: NPV: $0.118M, ROI: 200%, IRR: 66%

Based on the data above, I would now change to recommend option 2 for the following reasons:

1. Higher return: The NPV for option 1 declines. The NPV of option 2 is the highest, and its ROI and IRR are also higher than option 1. These indicate that option 2 can be more profitable.
2. Quick to acquire the targeted technology products and enter market: Our company can learn the desired tech products development from the startup easily and swiftly. Moreover, since the startup has already had the product, we can join the market quickly, which would benefit our company considerably given the fast pace of change in technology.
3. Risk mitigation: Developing a software product is highly risky. Collaborating with the startup can make the product development risk diluted, reducing our financial uncertainty.
4. Share customer base and cross-selling: Our company might gain the startup's existing customer base, increasing our revenues.

4. If hiring contractors will increase the build cost by 15%, the adjusted metrics are as follows:

Option 1. Hiring contractors for build In-House: NPV: $1.60M, ROI: 64%, IRR: 18%

Option 2. Collaborate/Joint Venture: NPV: $2.41M, ROI: 84%, IRR: 23%

Option 3. Do Nothing/Advertise: NPV: $0.118M, ROI: 200%, IRR: 66%

Based on the data above, I would recommend option 2 for the following reasons:

1. Higher return and long-term insights: The investment cost for option 1 now increases a lot, much closer to the cost for option 2. However, The NPV, ROI, and IRR of option 2 are all higher than option 1, implying that option 2 would have higher payback. Although option 3 has the highest ROI and IRR, the NPV is too small, suggesting that the investment is small scale. In addition, given that technology products can quickly become obsolete or outdated, our company risks losing more customers and being phased out briskly if relying solely on advertising in the future.
2. Revenues synergies: New ideas may come out as two companies form a joint venture, leading to new and innovative technology product development. Joining forces may also contribute to additional sales channels. These would elevate the possibility of our company’s revenue growth.
3. Cost synergies: The collaboration may make two companies save money for using cloud services through bulk volume discounts. It may also enhance marketing and sales efficiencies by combining marketing promotions, advertising, etc.