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ITM 189

Point of Sale Exercise on Jollibee Food Corporation

1. Introduction

In this exercise, the group is in the middle of making a decision on building a POS system based on two alternatives for the whole Jollibee restaurant chain. We assume that Jollibee has 700 stores in total globally and uses an average of two POS terminals per store.

Again, we are tasked to weigh between two alternatives. The first alternative uses standalones backed up by a server. On the other hand, the second alternative uses cloud services.

1. Alternative 1

* POS 1: HP ElitePad 900 = $979 per unit,

979 x 700 units = $ 685,300

<http://posnation.com/shop_pos/complete_pos_systems?product_id=953>

* POS 2: 15” Acer Terminal = $849 per unit

        849 x 700 units = $ 594,330

<http://www.kandkpos.com/hardware-pricing/>

* Server: Acer Back Office Server = $900

900 x 700 units = $630,000

<http://www.kandkpos.com/hardware-pricing/>

With regards to the software, each POS terminals are already assumed to have been integrated with one. For this alternative, the PLDT Alpha Enterprise’s Business DSL would be subscribed and this costs at P3000 per month. The advantage of this system is that each store is independent. This advantage comes in handy since when a network in one store breaks down, other networks in other stores would not be affected as opposed to one big centralized system. Also, payment for any POS component would only be done once

The consequences lie by the fact that there exists a number of POS hardware and an additional maintenance for the hardware. Another disadvantage is when the system crashes, all data can be completely wiped out. A big initial cash out on payment is also required.

1. Alternative 2 - Cloud-Based POS System

* Server - Windows Azure
  + Server: Large(A3), Quad-core virtual processor, 7 GB RAM
  + Cost: $238/month, $2,856/year
* POS Terminal
  + Panasonic Envo JS-960
  + Cost: $93.60
  + Total Cost: $131,040 (1,400 units)

For this alternative, the system will have to use open source software which will cut costs down. It will also have a different kind of POS terminal, albeit a cheaper kind, to accommodate the change in software.

The advantages for this alternative are that there is less hardware required as the POS terminals and DSL periphery is only needed. Also server maintenance and depreciation is not a concern. Also when the system plans to integrate a new store, the process won’t be as complicated.

1. Costing

Cloud POS appears to be the more advantageous not just because of its qualities but also because of its cost efficiency. Jollibee might want to look into this prospect.

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Alternative 1** | **Units** | **Per Unit Cost** |  | **Year 0** | **Year 1** | **Year 2** | **Year 3** | **Year 4** | **Year 5** |
| POS Terminal 1 | 700 | Php43,076 |  | Php30,153,200.00 |  |  |  |  |  |
| POS Terminal 2 | 700 | Php37,356 |  | Php26,150,520.00 |  |  |  |  |  |
| Back Office Server | 700 | Php39,600 |  | Php630,000.00 |  |  |  |  |  |
| DSL - PLDT Alpha Enterprise | 700 | Php 3000 per month |  |  | Php25,200,000.00 | Php25,200,000.00 | Php25,200,000.00 | Php25,200,000.00 | Php25,200,000.00 |
| Power Generated by Server\*\* |  | Php 11.8 per KWH |  |  | Php22,429.44 | Php22,429.44 | Php22,429.44 | Php22,429.44 | Php22,429.44 |
| Total |  |  |  | Php56,933,720.00 | Php25,222,429.44 | Php25,222,429.44 | Php25,222,429.44 | Php25,222,429.44 | Php25,222,429.44 |
|  |  |  |  |  |  |  |  |  |  |
| NPV (discounted cash outflows)\*\*\* | |  |  | Php83,714,240.00 | Php21,932,547.34 | Php19,071,780.29 | Php16,584,156.78 | Php14,421,005.89 | Php12,540,005.13 |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  | **Total NPV** | **Php168,263,735.43** |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| **Alternative 2** | **Units** | **Per Unit Cost** |  | **Year 0** | **Year 1** | **Year 2** | **Year 3** | **Year 4** | **Year 5** |
| POS Terminal (Panasonic Envo JS-960) | 1400 | Php4,118.40 |  | Php5,765,760.00 |  |  |  |  |  |
| Cloud Server (Windows Azure) | 1 | Php 10472 per month | |  | Php126,192.00 | Php126,192.00 | Php126,192.00 | Php126,192.00 | Php126,192.00 |
| Software - Open Source | 1 |  |  |  |  |  |  |  |  |
| DSL - PLDT Alpha Enterprise | 700 | Php 3000 per month |  |  | Php25,200,000.00 | Php25,200,000.00 | Php25,200,000.00 | Php25,200,000.00 | Php25,200,000.00 |
| Total |  |  |  | Php5,765,760.00 | Php25,326,192.00 | Php25,326,192.00 | Php25,326,192.00 | Php25,326,192.00 | Php25,326,192.00 |
|  |  |  |  |  |  |  |  |  |  |
| NPV (discounted cash outflows)\*\*\* | |  |  | Php5,765,760.00 | Php22,022,775.65 | Php19,150,239.70 | Php16,652,382.35 | Php14,480,332.47 | Php12,591,593.46 |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  | **Total NPV** | **Php90,663,083.63** |  |  |  |  |