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E: info@bacs.vn
W: www.bacs.vn

*This document is to be used to define the base project details to gain
business approval to move forward with the project.*

Doughlicious Pastry Delivery Opportunity

Name: Jeremy Aschenbrenner   Date: 02/05/2017

1. – EXECUTIVE SUMMARY

Over the course of the previous 6 months, Doughlicious Pastry has lost significant revenue. An analysis revealed much of the revenue lost was due to customer dissatisfaction around a delivery process that was initiated in June of 2016. It is proposed an off-the-shelf, software as a service (SaaS) Delivery Tracking System (DTS) be purchased and configured to capture and automate much of the delivery process. The project is expected to take less than two months and is estimated to bring a Net Present Value of over $50,000 in ten years.

2. – PROBLEM STATEMENT

Doughlicious Pastry's revenue and customer satisfaction rating have decreased over the past six months. Through feedback received via customer surveys and comment cards, it has been determined a large cause of the losses were due to the new delivery services which started in July 2016.

3. – ANALYSIS

In response to new competition with delivery options, back in July of 2016, Doughlicious Pastry added the ability for customers to have orders over $150 to be delivered to any location within 50 miles of the Doughlicious Pastry store for a small fee. This delivery option was something that was expected to increase customer satisfaction and revenue as it would provide convenience for the customer.

From July 2016 to January 2017, Doughlicious Pastry lost nearly $22,000 in revenue. Keeping with this trend, losses are expected to be in excess of $40,000 by the end of June 2017 and above $40,000 for each additional year.

To identify the issue of the decreased revenue, in December of 2016 Doughlicious Pastry customers were surveyed. It was found that customer satisfaction rating had decreased from 4.7 of 5 (June 2016) to a 4.2 of 5 (January 2017). Over 75% of the surveys indicated the delivery service was the cause of their dissatisfaction. Of the customers unhappy with the delivery services, there were three key reasons that stood out.

- Delivery was late – 38%
- Delivery never arrived - 31%

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- Incorrect invoicing – 27%

To dig deeper into the root cause, the current delivery processes were scrutinized. It was found that employees have been utilizing the Doughlicious Pastry System to enter the orders (business as usual), but follow a manual, undocumented process to indicate the order for delivery. Once the order has been entered into the system, the current process has them print out the order information, hand write the delivery information (address, date, and time), and pin the paper to the bulletin board outside of the General Manager's office.

Each morning, the General Manager searches through the delivery slips pinned on the board and pulls down the ones for that day. The Manager then puts the delivery slips in order based on the delivery time requested and places them in an inbox outside their office.

As the driver starts their morning shift, they grab the delivery slips from the inbox, self-load the product into the truck, and complete the assigned deliveries. At each delivery stop, the customer signs the bottom of the delivery form to indicate the successful receipt of the product. Upon returning to Doughlicious Pastry, the driver staples all delivery slips together and puts them into the Invoice Receivable inbox.

Each morning Invoice Receivables goes through the delivery slips submitted by the driver for the previous day and manually adds the shipping cost of $4.95 to the customer's invoice. They then file the delivery packet away into a filing cabinet.

Identified issues with the current process:

- Employees forget to print out the customer order and pin for delivery
- Handwritten delivery information is sometimes forgotten or illegible
- Delivery slips are sometimes lost or destroyed
- Customers don't receive any copies of the paperwork at the time of the delivery
- Committed to delivery times are not cross-checked again feasibility based on other promised deliver times for that day
- The order of deliveries is based solely on the time requested, not the most efficient route
- Since no delivery information is captured within the Doughlicious Pastry system, there is no reporting on delivers
- When customers call in to discuss their deliveries, employees must transfer them to Accounts Receivable

4. – SOLUTION OPTIONS

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Note - Due to the recent setbacks and lower than project revenue, cash flow for the business is very low.

1. **Do nothing** – If this project isn't moved forward, it is estimated that Doughlicious Pastry will continue to lose $40,000+ of revenue per year. At this trend, the company will not be profitable within of 7 years.

2. **Modify current Doughlicious Pastry system** – Create a project to redefine the delivery processes and implement those changes to the existing Doughlicious Pastry system. Adding some features like data captures, tracking of deliveries, auto-charging the delivery fees, smart routing dispatch, and delivery timeslots would reduce or eliminate most of the issues customers have identified.

    PROS
    a. Leverage employee familiarity of the current system
    b. Add delivery process automation which will increase employee efficiency
    c. Solves most of the identified customer satisfaction concerns
    d. Can utilize current system reports with small in-house modifications

    CONS
    a. Project is expected to take 6-8 months to complete
    b. Must research and hire a development contractor
    c. Need to get hired contractor up to speed on current system (current system documentation is out of date)
    d. Fairly high upfront cost

3. **Delivery tracking software** – Purchase licenses for pre-built DeliveryTracking.com software. This is some highly rated off-the-shelf software which will meet most of Doughlicious Pastry's needs out of the box. An in-house resource (assuming a Business Analyst) would utilize the administrative and configuration tools of the software, to meet the business needs. DeliveryTracking.com includes support to answer questions on configuration options and they provide the training materials necessary to roll it out to employees.

    PROS
    a. Software is already built and can be implemented within 1-2 months
    b. No need to hire an outside contractor
    c. Lower upfront costs
    d. Solves most of the identified customer satisfaction concerns
    e. All future updates to the product, including new features, come at no additional cost

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f. System questions and changes can be handled in-house

CONS

a. Causes employees to double enter data reducing efficiency and accuracy
b. Business Analyst would need to learn and configure the system
c. Cannot connect data from the existing Doughlicious Pastry system and the DeliveryTracking.com system into one report
d. Ongoing monthly license fees
e. Scaling (adding more employees) would increase the ongoing costs

4. **Remove the delivery process** – Since much of the recent customer dissatisfaction is stemming from the new delivery process, one option is to have the option of delivery removed. In April of 2016 a project was completed to analyze the new competition that had come to market and it was determined they were winning our customers away from us due to their ability to deliver their products. After reviewing that project findings it was determined removing the delivery process would likely cause Doughlicious Pastry customers to leave for the competition. The rate of customer loss was expected to be 14% for the first year and 22% the second. These losses would cause Doughlicious Pastry to not be profitable inside of two years.

5. – COST-BENEFIT ANALYSIS

1. *(see Solution Options section)*

2. **Modify current Doughlicious Pastry system** – To accomplish we would need to contract out as we do not have the technical resources to accomplish. It is estimated the project would need to budget 100 hours from the contractor to complete. Using stats that most of our past projects go 20% over budget, we are budgeting 120 hours for contractor development. We also need to take into consideration the time (estimated 150 hours) for our internal Business Analyst to define requirements, manage the project with the vendor, assist in testing, create reference materials, and train to our employees. Finally we need to consider the anticipated cost of training for our 10 employees to attend a 2 hour training session.

Anticipated Costs		
Contractor (120 hrs @ $175)	$	21,000
Business Analyst (150 hrs @ $40)	$	6,000
Employee Training (10 ppl x 2 hrs @ $15)	$	300
Total Cost of Project	$	27,300

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We expect to be able to utilize this newly updated software for 10 years. Year 0 we don't expect any maintenance costs. Year 1 we expect $7,000 in maintenance costs. As the software ages, we expect the costs to rise annually by 10%. For example, Year 2 is anticipated to have $7,700, Year 3 $8,470…Year 10 to have $16,506.

After calculations, we expect to have the system paid off in 3.16 years. With a Return on Investment of nearly 40%, we expect a net monetary gain of $48,390.

Payback period	3.16	years
ROI	39.49%	
NPV	$48,390	

3. **Delivery tracking software** – As this product is off-the-shelf, we would need to purchase the project initially and then purchase a total of 12 different licenses.

DeliveryTracking.com sells the licenses in blocks of 10 and doesn't have different rates for various license types (user, manager, admin). Our Business Analyst would need to gather and document the business requirements, learn the new system, and configure the system to meet the business needs. Finally we need to consider the anticipated cost of training for our 10 employees to attend a 4 hour training session.

Anticipated Costs		
Software Cost	$	5,000
Licenses ($144 per yr x 15 users	$	2,160
Business Analyst (200 hrs @ $40)	$	8,000
Employee Training (10 ppl x 4 hrs @ $15)	$	600
Total Cost of Project	$	15,760

We expect to be able to utilize this off-the-shelf software for 10 years. Year 0 we don't expect any maintenance costs. Year 1 we expect $3,000 in maintenance costs and $2,160 in license costs. As the software ages, we expect the maintenance costs to rise annually by 25%.

We also expect to have to purchase another block of 5 licenses in Year 6. For example, Year 2 is anticipated to have $5,910 ($3,750 maintenance and $2,160 licenses), Year 3 $6,848 ($4,688 maintenance and $2,160 licenses)… Year 6 $12,035 ($9,155 maintenance and $2,880 licenses)… Year 10 to have $25,352 ($22,352 maintenance and $2,880 licenses).

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After calculations, we expect to have the system paid off in 3.27 years. With a Return on Investment of over 87% we expect a net monetary gain of $52,361.

Payback period		3.27	yrs
ROI		87.85%	
NPV	$	52,361	

4. *(see Solution Options section)*

6. – RECOMMENDATION

After carefully reviewing all options, it is recommended that Doughlicious Pastry moves forward with the Delivery Tracking Software (DTS). While both the DTS and modifying the current system would comparably solve for the business problem, the DTS has several advantages given the current situation:

1. <u>Low initial cost</u> – As the business' revenue has dropped significantly, cash flow has become a large concern. Of the two options, the DTS has a much lower initial investment at $15,760. This will reduce the amount of loan the business needs to obtain, and thus reduce the monthly interest payments.
2. <u>Less risk</u> – With the DTS system being an off-the-shelf solution, it carries a much lower risk of the project running over budget since it is already been through full testing cycles
3. <u>Quick to implement</u> – With the business losing money and customer satisfaction on a weekly basis, a change needs to be made quickly to stop the issue. The DTS system should be able to get up in running within a month or so, while the other solution would take more than half a year.
4. <u>Ability to maintain in-house</u> – As we train our Business Analyst to own this system, they will be available to help configure, adapt, and quick implement changes to the system as the business need arises.
5. <u>Automatic feature upgrades</u> – Each quarter Doughlicious Pastry will receive free software updates and feature enhancements. The DTS system was created by ABC Technologies and they have a team of developers that are constantly improving the software. These new features will not cost Doughlicious Pastry anything to take advantage of.

Since making no change will likely lead to Doughlicious Pastry closing their doors, the choice is clear. We need to move forward with the Delivery Tracking Software and we need to begin the process immediately.