# EA project roadmap proposal for Taco Pantry

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**Business description:**

Taco Pantry is a family restaurant that currently has only one location that serves different Mexican food dishes and drinks that include alcoholic beverages. The restaurant is in Pueblo, Colorado and has been in business for over twenty years with very little concern of ever expanding despite the continued requests from customers to open additional locations.

The original owner, Joe, is concerned that expanding would mean more locations with a reduced family feel and the food served would lose authenticity. The owner’s daughter, Josephine, is set to take over the business soon and is excited about the possibility of expanding to multiple locations to keep up with demand. She is also wondering what the process would be to expand since she spends more time making sure customers and employees are happy and less time on the logistics of the business.

What makes Taco Pantry so enticing to customers is a combination of its family feel and its incredible Pueblo Green Chile sauce. The Pueblo Green Chile is similar to Hatch Valley Chiles from New Mexico, but is grown in the town of Pueblo, Colorado. The restaurant is open 6 days a week and closed on Mondays. During those six days the business is constantly busy and at times has table wait times of over an hour. Local town folk are often feeling like trying to keep the restaurant a secret so the wait time don’t grow any longer.

**Industry description:**

Taco Pantry exists within the Food services and Drinking Places sector NAICS 722 as identified by the Bureau of Labor statistics. Challenges within this industry include competition for customers and employees. Attracting customers is often a major issue for new restaurants but existing well visited establishments also must keep an eye on customer satisfaction so they keep customers coming back.

Both new and existing establishments must compete for servers and cooks. Finding reliable help that can keep a consistent schedule and help customers feel appreciate and cared for is often what separates a successful restaurant from competitors.

Some trends within the industry benefit the current way Taco Pantry operates while others show gaps for the restaurant. Industry new shows 100% growth in farmers markets between 2007 and 2017 which fits with the trend of customers wanting local farm to table ingredients. The special ingredient for Taco Pantry’s Pueblo Green Chile might spell success for expansion within Colorado and the region but how about other states within the U.S.?

The industry is also way ahead in technology as compared to the Taco Pantry. The industry trends include:

**Ordering:**

* Call ahead ordering and seating
* Online ordering and group ordering
* Phone apps to for ordering

**Apps for feedback and ordering:**

* Phone apps to collect customer feedback.
* Loyalty programs
* Customer databases that allow for predicting demand
* Databases for offering specials to drive up demand during slow times

**Goals and initiatives:**

**Margins and growth** – Taco Pantry has operated as a family business with very little concern for money. However with the prospect of expansion the company would like to understand its margins and use the existing restaurants success to help fund expansion into more locations.

* **By the end of 2019, Taco Pantry would like to have cost estimates for additional locations and understand existing business operations and margins so it can understand how much capital it will need for expansion.**

**Customer satisfaction** – The company understands that continued success is only possible by keeping customers happy. Also monitoring customer sentiment through expansion is key to making sure the authenticity and charm of the restaurant is not lost.

* **By Q1 of 2020 Taco Pantry will implement a Net Promoter Score (NPS) system for tracking customer feedback so it can continue to improve service to customers.**
  + Customer surveys to be sent based on transaction with the restaurant, our goal is to have a response rate of 5% of surveys sent by the end of 2020.
  + By the end of 2021 we would like to have a response rate of 10%.
  + Initial response will be analyzed and goals for customer satisfaction will be set for 2022 using baseline from initial responses.
  + Initial plan is for a transactional Net Promoter Score (tNPS) of +15 in 2021 and +30 by 2022 to match existing best in class restaurants.

**Employee satisfaction -** The Company understands that continued success is only possible by keeping customers happy. Keeping customers happy is related to the overall attitude of the employees. Monitoring employee sentiment and feedback through expansion is key to making sure customer service remains a core value for employees.

* **By 2020 Taco Pantry will implement a Net Promoter Score (NPS) system for tracking employee feedback and sentiment monthly so it can continue to improve service to customers through happy employees.**
  + By 2021 our goal is 50% response rate to employee surveys
  + By 2022 our goal is 60% response rate to employee surveys
  + Employee Net Promoter Score (eNPS) measures workplace satisfaction, motivation and product and our goal is for 2022 to have motivation at 50, workplace at 65.
  + Surveys will be analyzed and goals for ratings will be adjusted once baseline is established.

**Business Capability Map: Level I and II**

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| --- | --- | --- | --- |
| **Services** | **Catering**  Large group orders  Banquets  Extra staff | **Takeout**  Food delivery  Phone ordering  Phone App | **Meals**  Food preparation  Pricing and specials |
| **Management** | **Accounting**  Book keeping  Accounts payable | **Expansion**  New locations  Planning for growth | **Reservations**  Restaurant reservations  Catering and banquets |
| **Customers** | **Marketing**  Groupon  Coupons | **Loyalty program**  5th Entrée free  Appetizer card | **Surveys**  tNPS –transaction/experience survey (Net Promoter) |
| **Employees** | **HR/Hiring**  Manage staff  Plan staff | **Payroll**  Pay employees  Employee benefits | **Survey**  eNPS – employee  Net Promoter Score |
| **Product** | **Purchasing**  Suppliers  Food and Beverages | **Inventory**  Food storage  Perishables management | **Menu**  Content & Pricing  Nutrition and Allergens |

**Taco Pantry Enterprise Architecture Principles:**

**Domain: General Business:**

**Principle: Business continuity**

**Description:** Restaurant activities must be maintained, despite system interruptions.

**Rationale:** Employees must be able to continue conducting their normal activities, regardless of external events. System failures must not interrupt business activities and customer experience. Employees must be able to employ alternative mechanisms to keep operating and serving customers

**Implications:** Business interruption risks must be expected and managed in advance. Management includes developing alternative practices for potential outages.

**Principle: Protection of Intellectual Property**

**Statement:** Intellectual Property (IP) must be protected. This protection must be reflected in the IT architecture, implementation, and governance processes.

**Rationale:** The way we operate our business, prepare and source our ingredients separates us from our competitors and is considered IP.

**Implications:** While protection of IP assets is everybody's business, much of the actual protection is implemented in the IT domain. Even trust in non-IT processes can be managed by IT processes (email, mandatory notes, etc.).

**Domain: Data and Information:**

**Principle: Data is easily accessible**

**Statement:** Data is easily accessible for users to perform their functions.

**Rationale:** Wide access to data leads to efficiency and effectiveness in decision-making, and affords timely response to information requests and service delivery. Using information must be considered from an enterprise perspective to allow access by a wide variety of users. Staff time is saved and consistency of data is improved.

**Implications:** This is one of three closely-related principles regarding data: data is an asset; data is shared; and data is easily accessible. The implication is that there is an education task to ensure that all organizations within the enterprise understand the relationship between value of data, sharing of data, and accessibility to data

**Principle: Data Security**

**Statement:** Data is protected from unauthorized use and disclosure.

**Rationale:** We must protect our data and our customer sensitive information such as credit cards against inappropriate use. Data breaches can impact our business and cause customers to lose confidence and trust in us.

**Implications:** Security must be designed into data elements from the beginning; it cannot be added later. Systems, data, and technologies must be protected from unauthorized access and manipulation. Company information must be safeguarded against inadvertent or unauthorized alteration, sabotage, disaster, or disclosure.

**Domain: Infrastructure/technology**

**Principle: Control of technical diversity and suppliers**

**Statement:** Technological diversity is controlled to minimize significant costs related to the maintenance of expertise and connectivity between several different processing environments.

Supplier management must focus on the lowest number of suppliers possible to meet business needs and reduce risks.

**Rationale:**

There is a real and significant cost related to the infrastructure required to support alternative technologies for processing environments. There are other infrastructure costs to maintain the architecture of multiple interconnected processors.

Limiting the number of supported components and suppliers simplifies and reduces maintenance and management costs.

A smaller number of suppliers and software packages represent a greater ease and lower integration costs.

**Implications:**

Policies, standards, and procedures that regulate the acquisition of technology or contracting with new suppliers must be directly bound to this principle.

The selection of contracted suppliers must be a strategic decision, always considering other types of services that could be provided by the same supplier.

**Principle:** **Interoperability**

**Statement:** Software and hardware must follow established standards that promote data, application, and technology interoperability.

**Rationale:** Standards help ensure coherence, thus improving the ability to manage systems, raise user satisfaction, and protect current IT investments, thus maximizing return on investment and reducing costs.

**Implications:** Interoperability and industry standards must be followed unless there is a mandatory business reason to implement a non-standard solution.

A process to establish standards, periodic revision, and exceptions must be established.

Current IT platforms must be identified and documented.

**Domain: Applications:**

**Principle: Ease-of-Use**

**Statement:** Applications are easy to use. The underlying technology is transparent to users, so they can concentrate on tasks at hand.

**Rationale:** The more effort a user has to understand the underlying technology, the less productive that user is. Ease-of-use is a positive incentive for use of applications. It encourages users to work within the integrated information environment instead of developing isolated systems to accomplish the task outside of the enterprise’s integrated information environment. Most of the knowledge required to operate one system will be similar to others. Training is kept to a minimum, and the risk of using a system improperly is low. Using an application should be as intuitive as driving a different car.

**Implications:** Applications will be required to have a common "look-and-feel" and support ergonomic requirements; hence, the common look-and-feel standard must be designed and usability test criteria must be developed

**Principle: Adaptability and flexibility**

**Statement:** IT systems are conceived to generate change, and they reflect alterations in laws, social needs, or other types of changes.

Adaptability and flexibility reduce the complexity and promote integration, which improves the company's business activities.

Excessive customization increases costs and reduces the ability to adapt.

**Rationale:** Allows the infrastructure to support changes that frequently occur in business processes within the company. Renders the infrastructure more adaptable to IT changes and IT market strengths. Allows the improvement of business processes. Promotes a simpler and faster system integration process, with less revision processes Allows systems to evolve to meet business needs and changes Complex systems with several data and transactional functions are difficult to manage and make changes extremely risky.

**Implications:** Initially, the systems might require more time to conceive and greater systemic consideration as operations go beyond the systems' traditional boundaries. Initial costs might be higher, but the integration process will be less expensive. Systems will last longer; therefore, the return will be greater.

**Current State:**

**Applications:** Business

1. Paper based point of sale process that includes staff writing down customer order and delivering to cook. When meal completes the same ticket is taken to a cash register and bill is run up manually and then total charge is calculated.
2. Survey Monkey, unlimited surveys with maximum 10 questions per survey
3. Microsoft Excel spreadsheets for inventory tracking
4. Quick books for accounting

**Applications/Business Capability Matrix:** Capabilities and Automation

1. **Survey application:** Survey Monkey automates the survey and allows survey data to be collected in one spot. This data is in a separate place than other data in the company making additional automation a priority.
2. **Inventory application:** Microsoft Excel is used for inventory and automates some of the inventory process with calculations showing total cost of items for the month. Addition automation and integration between this data and accounting data is essential for future growth.
3. **Accounting application:** Quick books for accounting automates revenue and expense tracking but has data that is separate from other applications.

**Data:** Master data objects

1. **Survey –** Customer, Employee, Survey, Response
2. **Inventory –** Product, Expense, Supplier
3. **Accounting –** Product, Employee, Inventory

**Technologies:**

Inventory runs on Windows OS platform using a personal computer.

Quick books accounting is run on a Mac using Apple OS.

Surveys are managed with a Windows Machine.

The credit card processing service does not integrate into Quick books without downloading a file from the vendor and manually importing using Mac computer

**Assessment of current state:**

**Business Goals:**

1. **Understanding margins business goal not met:** The inventory system does fit the business goal of understanding product margins on the meals served. Currently the system only helps track of inventory so we know when to re-order. If cost goes up on an inventory item it will impact the margin. Currently there is no tracking for what the cost was from a supplier on previous orders without tracking down a paper invoice.

**Business Capabilities:**

|  |  |
| --- | --- |
| **Capability** | **Automation state** |
|  |  |
| **Employees:** Payroll, Pay employees | Payroll needs automated, currently done manual. |
| **Product:** Inventory | Not automated, many manual processes that could be automated. |
| **Employees:** Surveys | Employee surveys are not automated, currently done manually |
| **Services:** phone ordering, group orders | Not automated, manual processes that could be automated |
| **Product:** Suppliers | Not automated, automation to inventory could include auto ordering at thresholds to ensure stock. Automation in accounting could also ensure sufficient funds for supplier ordering. |

**Architecture principles:**

1. **Data integration issues violate the data is easily accessible principle:** The current technology does not integrate the data which violates our data is easily accessible principle.

**Example**: The current state process for calculating margin requires data to be manually pulled together from multiple sources in different tools. Quick books data, inventory spreadsheets, credit card data imports and other data assets are spread out and must be brought together for reporting and analytics. The inventory data has to be matched based on the last order date for ingredients to the month we are calculating margin for, this requires multiple spreadsheets to be merged together. Additional expense data is then pulled from quick books and exported to CSV so it can be imported and also merged into Excel spreadsheets.

1. **Data security principle violated:** The current technology has limited security and violates our principle of data security. Virus and Malware protection software is out of date and needs updated. The Mac currently has no protection software installed. Credit card handling procedures should be reviewed to understand any potential shortcomings that could lead to data exposure.
2. **Interoperability principle violated:** The current technology does not integrate between systems and violates the principle of interoperability. Excel and Quick books are separate tools and sharing data is only done by building more spreadsheets that need changed manually each day, week, month or year.

**Applications evaluation:**

|  |  |
| --- | --- |
| **Application** | **Automation state** |
|  |  |
| **Payroll** | Payroll needs automated, currently done manual. |
| **Product:** Inventory using Excel | Partially automated, many manual processes that could be automated. |
| **Employees:** Surveys | Employee surveys are not automated, currently done manually |
| **Services:** phone ordering, group orders | Not automated, manual processes that could be automated |
| **Product:** Suppliers, Excel | Not automated, automation to inventory could include auto ordering at thresholds to ensure stock. Automation in accounting could also ensure sufficient funds for supplier ordering. |

**Future state target architecture:**

**Restaurant Management Software solution:**

An integrated restaurant management software solution will benefit multiple areas of the current business. The software solution will enable capabilities that showed as gaps in the current state of operations. The solution will also allow compliance with many of the EA principles violated by the current state architecture.

The solution features will include tracking of sales and taxes, menu automation, order management and integrated credit/gift card processing. Additional features for the solution include inventory control, employee management including security, comprehensive reporting and customer data, marketing, loyalty and reward programs.

The following table displays the restaurant management features and how they address current state principles and business capability gaps.

|  |  |
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|  |  |
| Vision and Goals | **Margin management** |
|  | Managing margins will now be possible with this solution which integrated the data domain. The inventory, menu and employee expenses all in one system and database allows for margin on menu items to be calculated. With this goal met the restaurant can understand profitable items to enable future growth |
|  |  |
| Principles | **Data is easily accessible** principle is met by established reporting and analysis on the underlying integrated application data for customers, inventory, sales and employee data. |
|  |  |
| Principles | **Data security** principle will be met with this new application that secures the data and allows different levels of access per employee.  **Data security** is also improved with the credit card processing data integration and security |

**Future state capabilities with restaurant management solution:**

|  |  |
| --- | --- |
| **Capability** | **Recommendation** |
|  |  |
| **Employees:** Payroll, Pay employees | Hours, timesheets and payroll is part of solution. |
| **Product:** Inventory | Inventory is automated and managed within the solution. |
| **Services:** phone ordering, group orders | Phone ordering and additional order management features including group orders are part of the recommended solution |
| **Product:** Suppliers | Supplier management and ordering is part of the solution including history and trending of pricing from vendors. |

**Customer and employee survey solution:**

A customer and employee survey system will allow company vision and goals to be met. The current system doesn’t give needed capabilities and is not integrated with the customer and employee data the way the new proposed system will.

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| --- | --- |
|  |  |
| Vision and Goals | **Customer satisfaction** |
|  | Integrated survey solution will enable tracking of customer sentiment and reviews at a level currently not captured. The integration of the survey system with the restaurant management system would allow additional insights and functionality to help meet the next 5 years of customer experience goals. |
| Vision and Goals | **Employee satisfaction** |
|  | Integrated survey solution will enable tracking of employee sentiment and reviews at a level currently not captured. The integration of the survey system with the restaurant management system would allow additional insights and functionality to help meet the next 5 years employee experience and engagement goals. |
|  |  |

**3-5 year proposed roadmap:**

**Year 1**

**Enterprise Architecture review**

**Year 2**

**Research and acquire restaurant management solution**

**Year 3**

**Implement restaurant management solution**

**Research and acquire survey management integrated solution**

**Year 4**

**Implement survey management integrated solution**

**Year 5**

**Strategic and architecture vision planning**

**EA tool recommendation:**

With only a single restaurant location a formal EA tool may not be necessary. As the company grows though EA tools should continue to be evaluated based on needs. One such tool to evaluate is listed below.

The Microsoft Office Suite of tools should meet the need for EA documentation in place of a formal EA tool until the company has grown to more locations or has demonstrated a need for additional diagramming and modelling of domain architectures. When capabilities like a centralized repository and asset lifecycle management is needed then consideration of a formal EA tool should begin. Currently Office tools like Excel and Visio could be used for EA.

**EA tool for future consideration:**

[**https://www.orbussoftware.com/us/**](https://www.orbussoftware.com/us/)

Tool offering:  iServer Enterprise Architecture tool

**Low Total Cost of Ownership**

By leveraging existing Microsoft technologies within organizations, iServer can be offered at a significantly lower total cost of ownership than the competition, typically 50% lower than other leading tools.

**Features/Capabilities**:

Central Architecture Repository, Preconfigured Meta-Model, Compatible with Microsoft Visio, Decision Support and Analysis tools, Generation of architecture roadmaps

**Benefits:**  Collaborative architecture practice, long term cost effective option, assess the impact of change, attractive visuals

**Framework support**:  TOGAF recommended.  Preconfigured repositories with predefined meta-model and embedded reference materials, templates and reports.