



Graceful Paws: An Example of How to Apply Business Architecture in a Startup Organization

A Business Architecture Guild® White Paper



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Note: Business architecture principles, techniques, and artifacts were used to define and design a new startup business: the nonprofit "Graceful Paws". Although the organization has not been established (at the time of the white paper's release), the purpose of this document is to illustrate the value that business architecture can bring to the business design process — for startups as well as established entities.

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Introduction

Former Secretary-General of the United Nations Kofi Annan defined a developed country as “one that allows all its citizens to enjoy a free and healthy life in a safe environment”.

Unfortunately, there are still many countries that do not fit into such a category — developing countries where people have lower life expectancy, limited education, and less money compared to most industrialized nations. These constraints can lead to increased corruption, increased inequality, and fewer education and skills development opportunities. Poverty can easily become the order of the day.

Poverty is defined as “the inability of having choices and opportunities, a violation of human dignity. It means lack of basic capacity to participate effectively in society. It means not having enough to feed and clothe a family, not having a school or clinic to go to, not having the land on which to grow one’s food or a job to earn one’s living, not having access to credit. It means insecurity, powerlessness, and exclusion of individuals, households, and communities. It means susceptibility to violence, and it often implies living in marginal or fragile environments without access to clean water or sanitation.”¹

If people are in poverty, their companion and work animals will also invariably be negatively affected.

The Terrestrial Animal Health Code of the World Organisation for Animal Health defines animal welfare as “how an animal is coping with the conditions in which it lives. An animal is in a good state of welfare if (as indicated by scientific evidence) it is healthy, comfortable, well nourished, safe, able to express innate behavior, and if it is not suffering from unpleasant states such as pain, fear, and distress. Good animal welfare requires disease prevention and veterinary treatment, appropriate shelter, management, nutrition, humane handling, and humane slaughter/killing. Animal welfare refers to the state of the animal; the treatment that an animal receives is covered by other terms such as animal care, animal husbandry, and humane treatment.”²

Every under-developed nation is at a different stage of progress when it comes to animal welfare. These countries have their own opinions about approaches to addressing the issue.

Some governments recognize that animal welfare is their responsibility, and they collaborate with local animal welfare organizations to bring about change. Others governments sanction the indiscriminate killing of animals indiscriminately because they lack the leadership or incentives to find a solution to the overpopulation of stray animals.

In some cases, actions seem to spring from desperation. If people complain about health and safety issues relating to the overwhelming number of stray animals or if there is a rabies outbreak, animals will often be culled or taken to a municipal shelter to await the death penalty by electrocution, edible poison, or an injected cocktail of badly mixed drugs that will cause excruciating pain before death.

Officials usually respond with relief upon learning that there are more humane, alternative approaches to the problem. Having one or multiple organizations step into the void as leaders and present solutions that prevent animal cruelty often help change communities' perceptions of domestic animals as nuisances. Education programs promoting responsible guardianship and spay/neuter campaigns have reshaped animal welfare in these countries.

Purpose of This White Paper

This white paper details how to use business architecture to establish a startup nonprofit organization. Specifically, it sets out to accomplish the following:

- Define and test the most effective strategy to achieve the organization's value proposition
- Provide the required information and thought processes as input into a business plan that will be submitted to donor organizations for funding
- Reduce the donor organizations' investment risk by providing detailed documentary evidence of the thought process followed to support the business plan
- Create accurate roadmaps for the startup's implementation plan

The Organization

The startup nonprofit business will be called "Graceful Paws". Its primary purpose is to improve companion and work animal welfare in under-developed communities around the world.

Graceful Paws will trade as a nonprofit entity, procuring donations from the community while retaining the ability to allocate all excess funds toward helping animals. The organization will be supported by a United States-based headquarters, which will provide centralized and shared services as well as source the required funding from donors in developed countries.

The startup's mission is to create world-class, robust, fully equipped clinics in under-developed communities enabled by skilled teams of volunteers and world-class equipment, medicines, and training. It will manage clinics using efficient and automated processes, resulting in educated clients and the improved health of companion and work animals.

Understanding the under-developed world and how we could effectively help in the right way, we decided on the following organizational goals:

#	Goals	Perspective
1	Setup a nonprofit business to elicit donations from donors necessary to support the organization.	Financial
2	Obtain fee and sales income from volunteers in return for provided experience, skills, and promotional items.	Financial
3	Make use of paying volunteers to deliver health care services.	Customer
4	Leverage the local community to provide hospitality services and tours as well as grow community support.	Customer
5	Adopt and apply a partnership approach with local Non-Government Organizations (NGOs) to improve service delivery.	Customer
6	Provide education to clients to improve the awareness of companion and work animal welfare.	Customer
7	Provide veterinary care to companion and work animals.	Customer
8	Develop a corporate identity and marketing campaigns to build stakeholder awareness.	Internal
9	Identify and set up a world-class, robust, remote, and fully contained, onsite, process-driven clinic facility to facilitate the delivery of the health care to companion and work animals.	Internal
10	Procure updated equipment, supplies, and medications timeously and as cost-effectively as possible.	Internal
11	Implement efficient processes to improve the turnaround time and control of cared-for animals.	Internal
12	Provide automated solutions to manage the control and collection of data and the provision of reporting.	Internal
13	Instill a culture of innovation within the organization to continually drive effective business transformation.	Internal
14	Effectively recruit and appropriately remunerate employees with the required competencies and mindset to work in challenging environments.	Learning

Figure 1: Goals

Our Approach

We developed the following business architecture blueprints to help design the most effective business and organization structure with the greatest likelihood of long-term success (should the business model be put into operation). It should be noted that while many of the blueprints are detailed in the *BIZBOK® Guide*, some additional artifacts have been used to provide further guidance (particularly around some of the strategy perspectives).

- Why?
 - Value proposition canvas, positioning diagram, business model canvas, business model environmental analysis, operating model, core diagram
 - Objective map, Kaplan & Norton strategy map
- How do we accomplish the what?

- o Value mapping matrix, value stream map, capability map, information map, organization map and stakeholder map
 - o Cross-mapping: Capability-to-value stream, capability-to-organization, capability-to-information
- Next steps
 - o Use business architecture blueprints to create the business plan for submission to foundations requesting funding

Figure 2 details the business architecture frame of reference we followed (i.e., the business perspectives, their relationships, and their key deliverables).

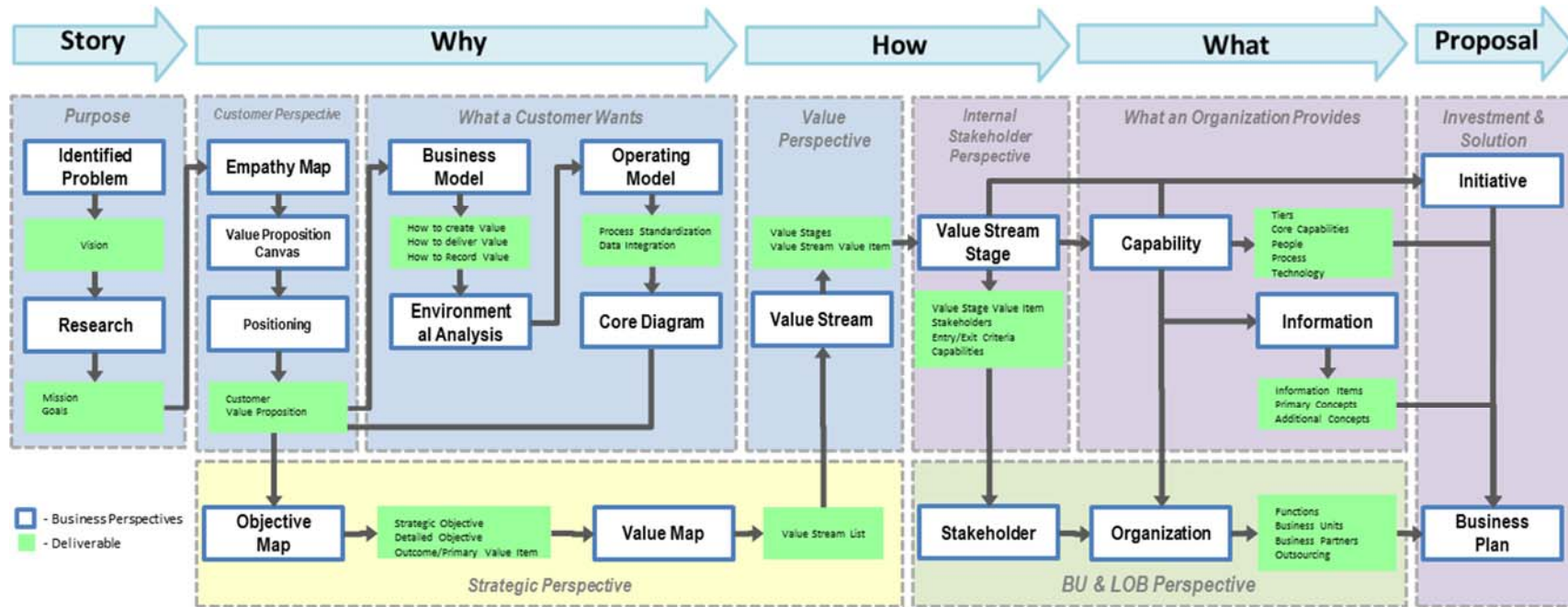


Figure 2: Business Architecture Frame of Reference

Business Design

This section shows each of the major blueprints developed over the course of designing the business. For purposes of brevity, only the customer-facing artifacts were included.

Customer Perspective

Empathy Map

It was imperative that we got into the “hearts and minds” of the people we were helping because of the nature of the solutions we wanted to deliver. We used an empathy map (see figure 3) to assist with this process.

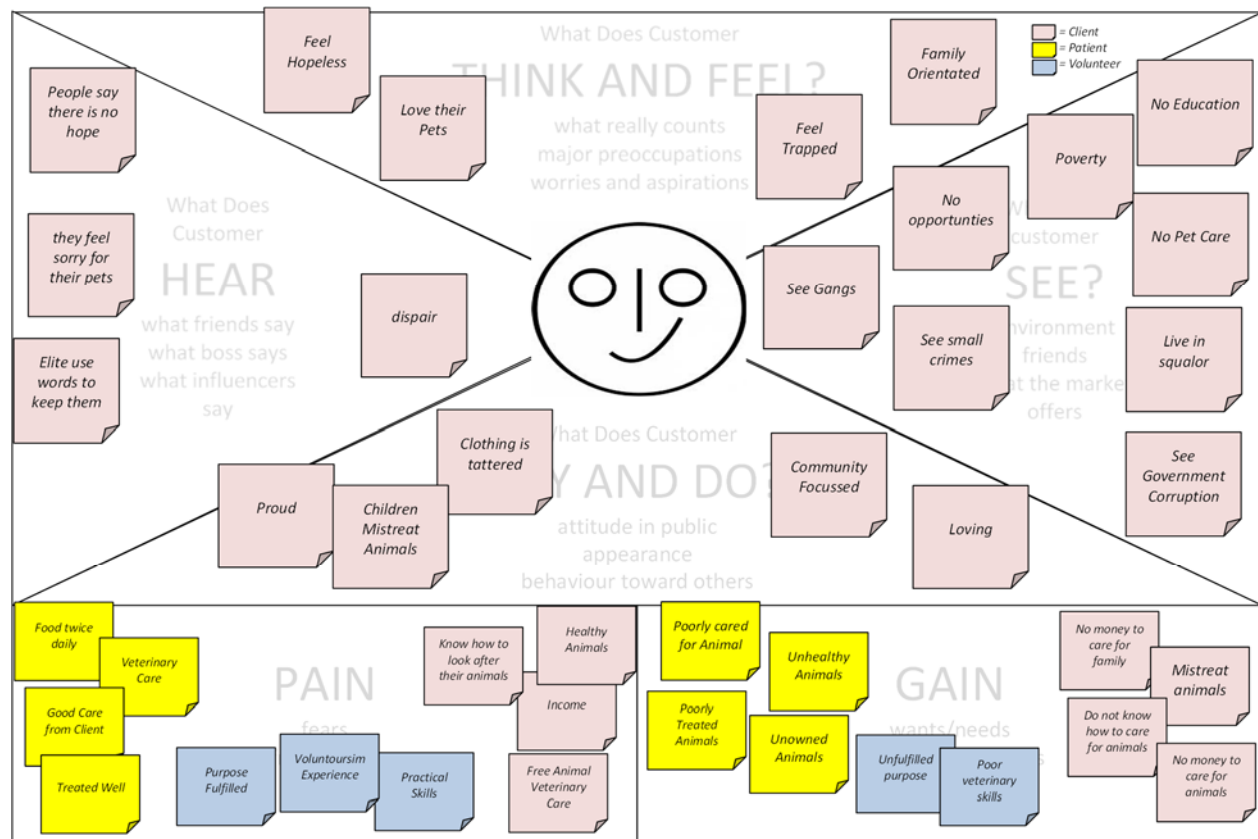


Figure 3: Empathy Map

Having completed the empathy map, it became evident that we needed to better define our target customer. Was it the animal owner, the animal, volunteers, or the sponsorship entities?

Value Proposition Canvas

We used a value proposition canvas (see figure 4) to solidify the value proposition. We mapped three role players for the “customer” due to the nature of the nonprofit company business model. The value proposition canvas details how we applied the required value proposition to address each customer profile.

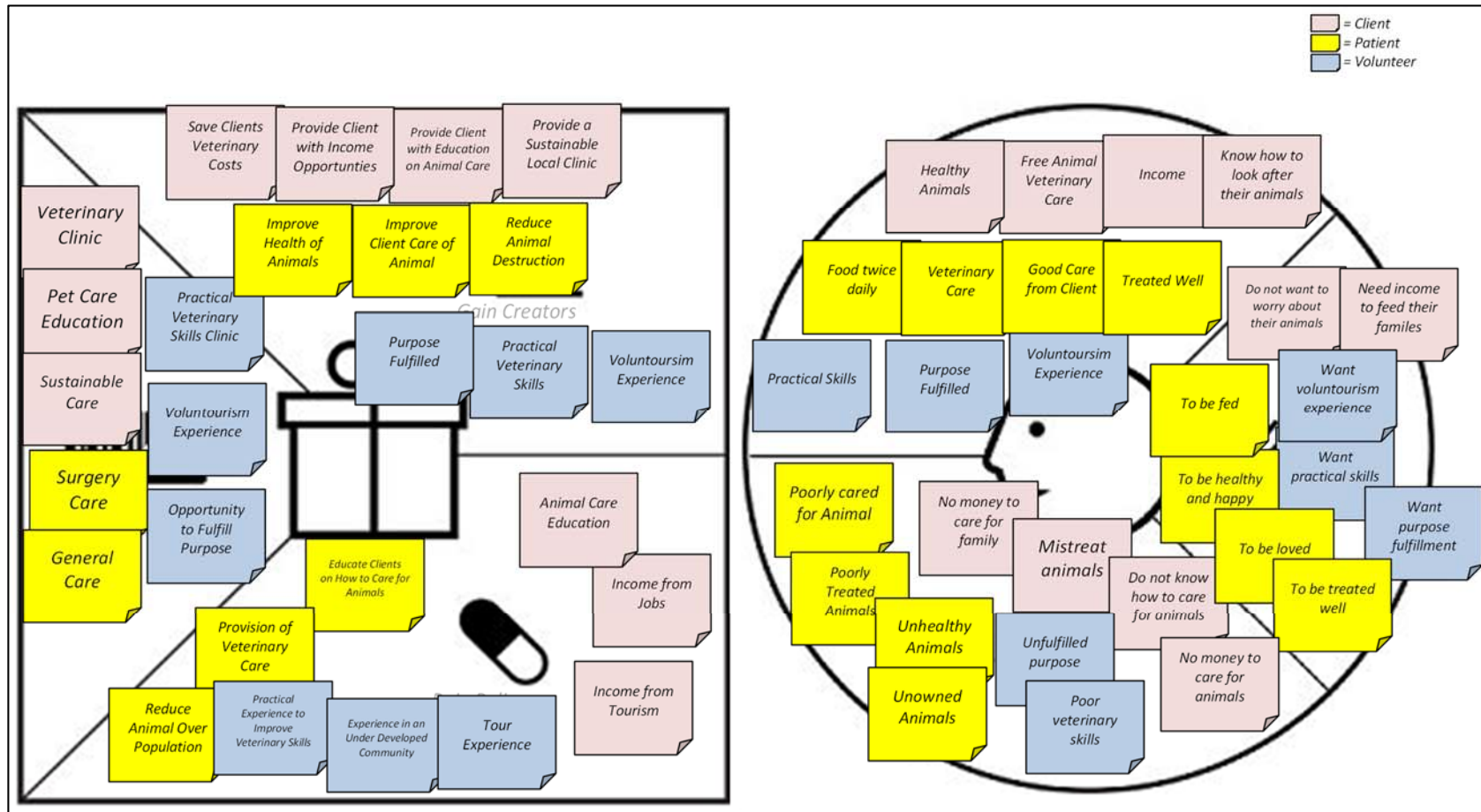


Figure 4: Value Proposition Canvas

A nonprofit company has a primary customer that it directly provides a service to. But, in our case, the customer is not paying for the service so we had to include the sponsor as a key stakeholder in the value delivery process. It also became evident that we would need to include a third party — the volunteer who would assist us with delivering the service. Finally, we had to ensure that the animals' needs were considered alongside their owners.

Customer Profile Prioritization

We used the prioritization technique shown in figure 5 to prioritize the customers' needs.

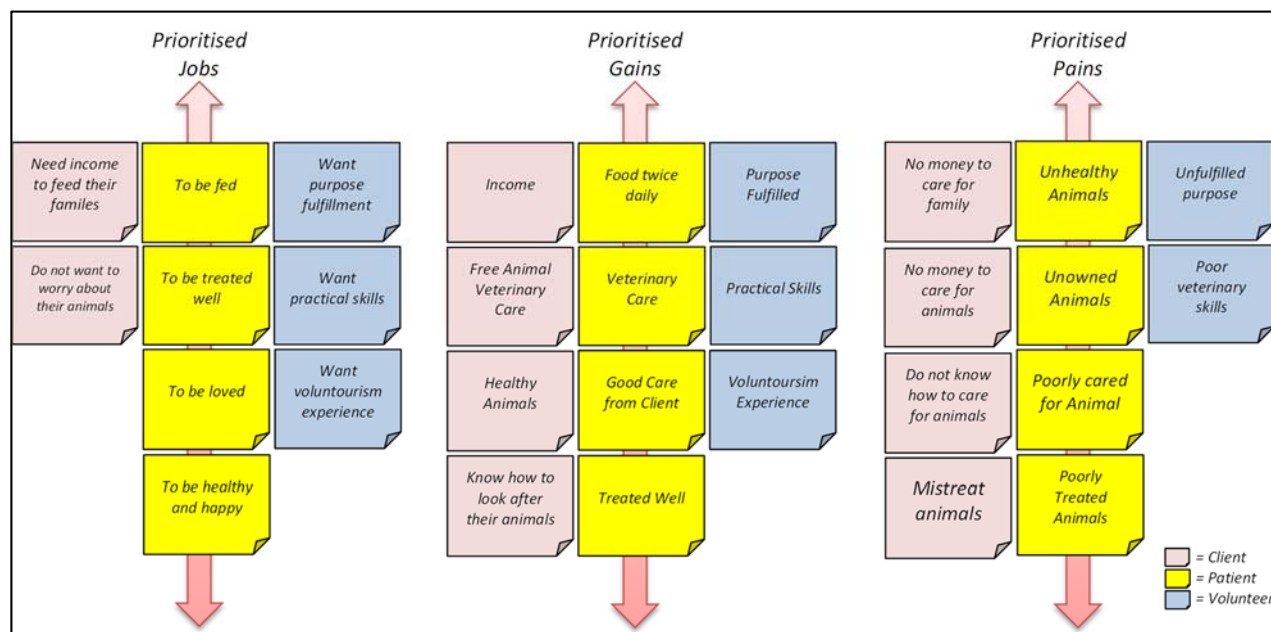


Figure 5: Customer Profile Prioritization

Business Model Perspective

Having identified the customers' needs and priorities, we then defined the startup's vision and strategy. The following three options were identified:

1. Help animals by delivering quality veterinary care and humane support.
2. Help student veterinarians by providing an environment to practice their surgical skills.
3. Help sponsorship organizations (donors) by ensuring that their purpose investment is well-used.

Each option would result in a completely different business model.

We documented the high-level positioning diagram (see figure 6) to facilitate our thought process around our strategic vision.

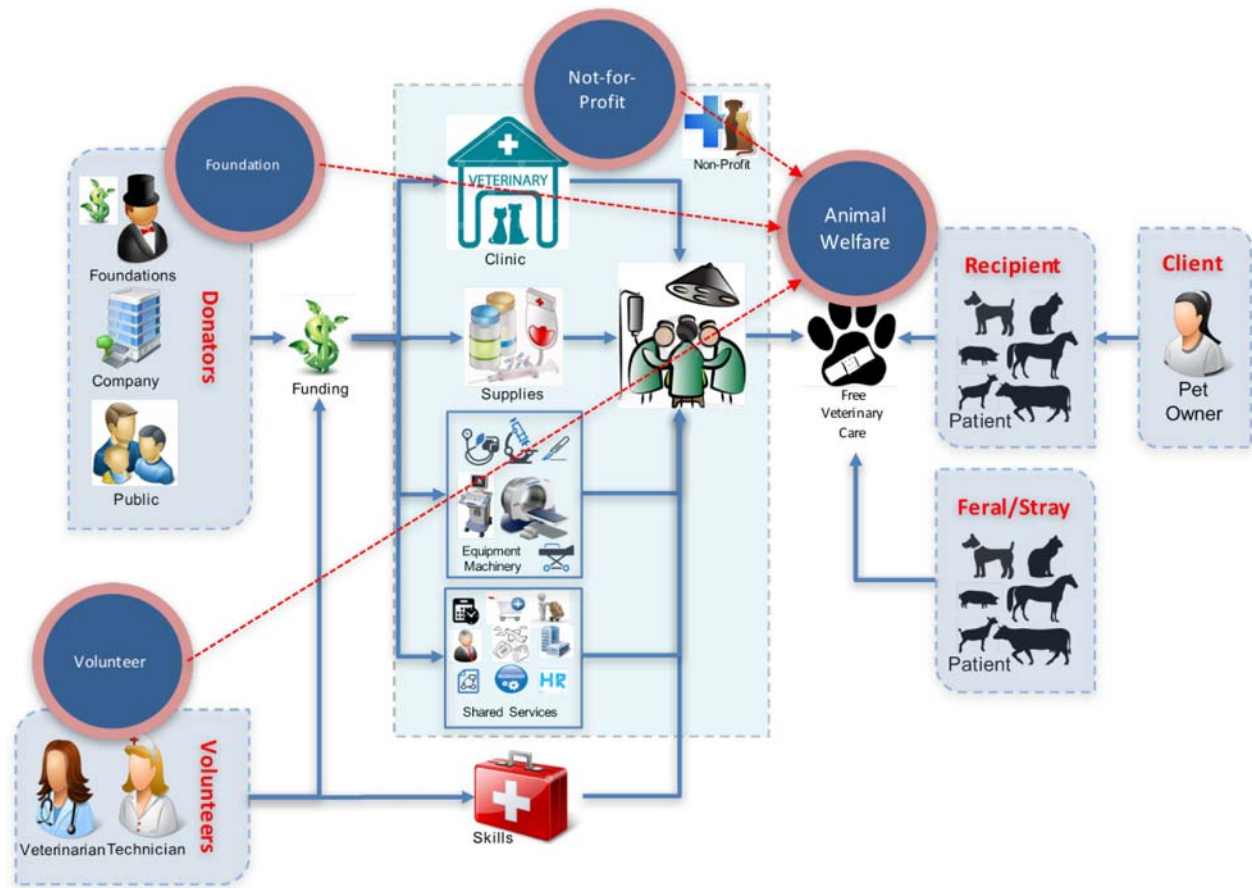
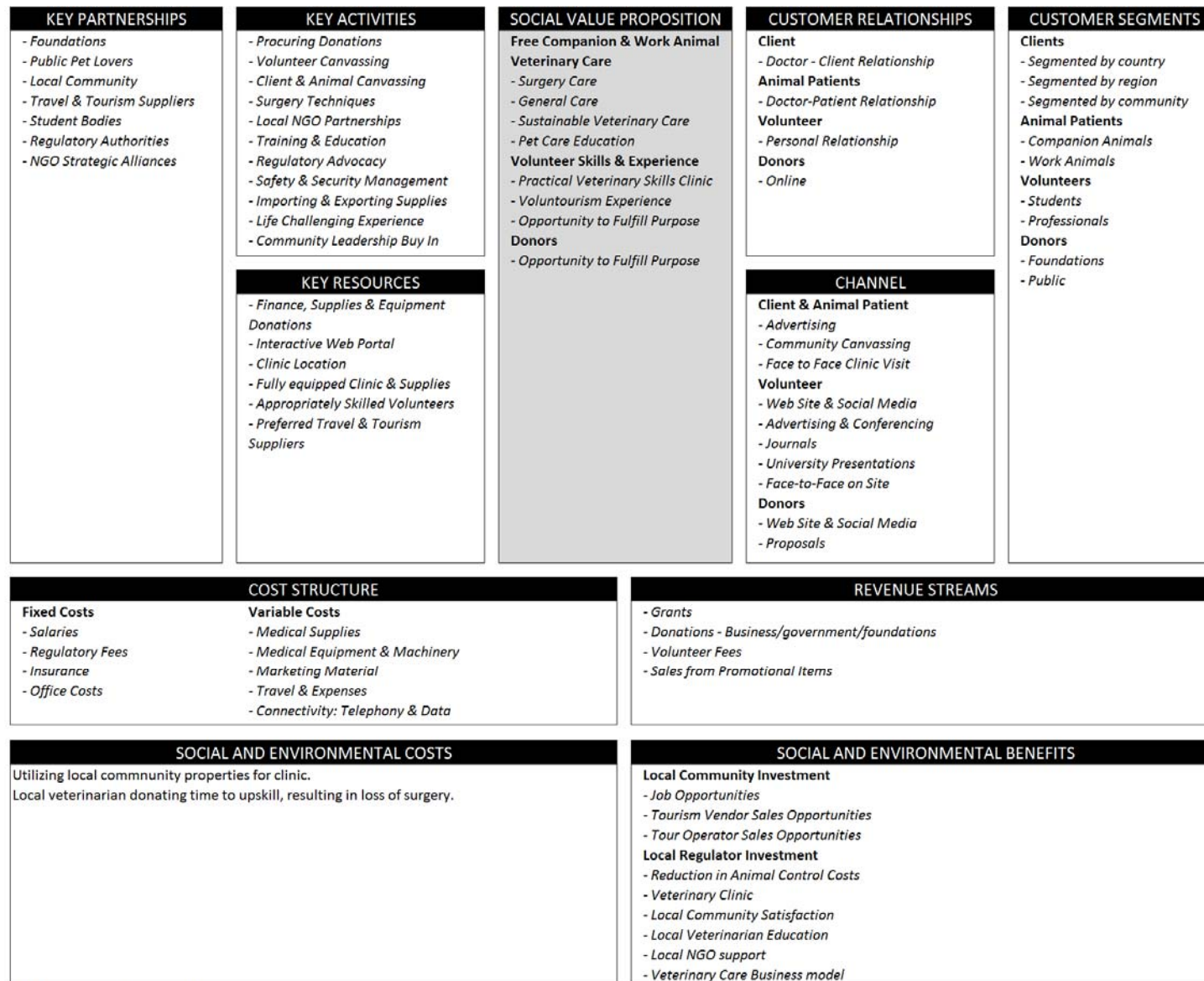


Figure 6: Positioning Diagram

We opted for option 1. However, we realized we would still need to include the donor and volunteers as customers as they would be providing the required funding to deliver the value proposition. We also realized both customer segments would require dedicated value propositions.

Business Model Map

After clearly confirming that the animal was the primary customer, we created a business model canvas (see figure 7) to describe how we would create, deliver, and capture value in such a way as to sustain our idea.



Template from: www.businessmodelgeneration.com

Figure 7: Business Model

Due to the organization being a startup, we spent additional time developing the business model to ensure we clearly understood the customers, the environment we were operating in, and the corresponding value proposition. We added social and environmental costs and benefits sections to the business model to reinforce the primary focus of the organization.

Business Model Environmental Analysis

We created an environmental analysis (see figure 8) to further inform our business model and business architecture mapping.

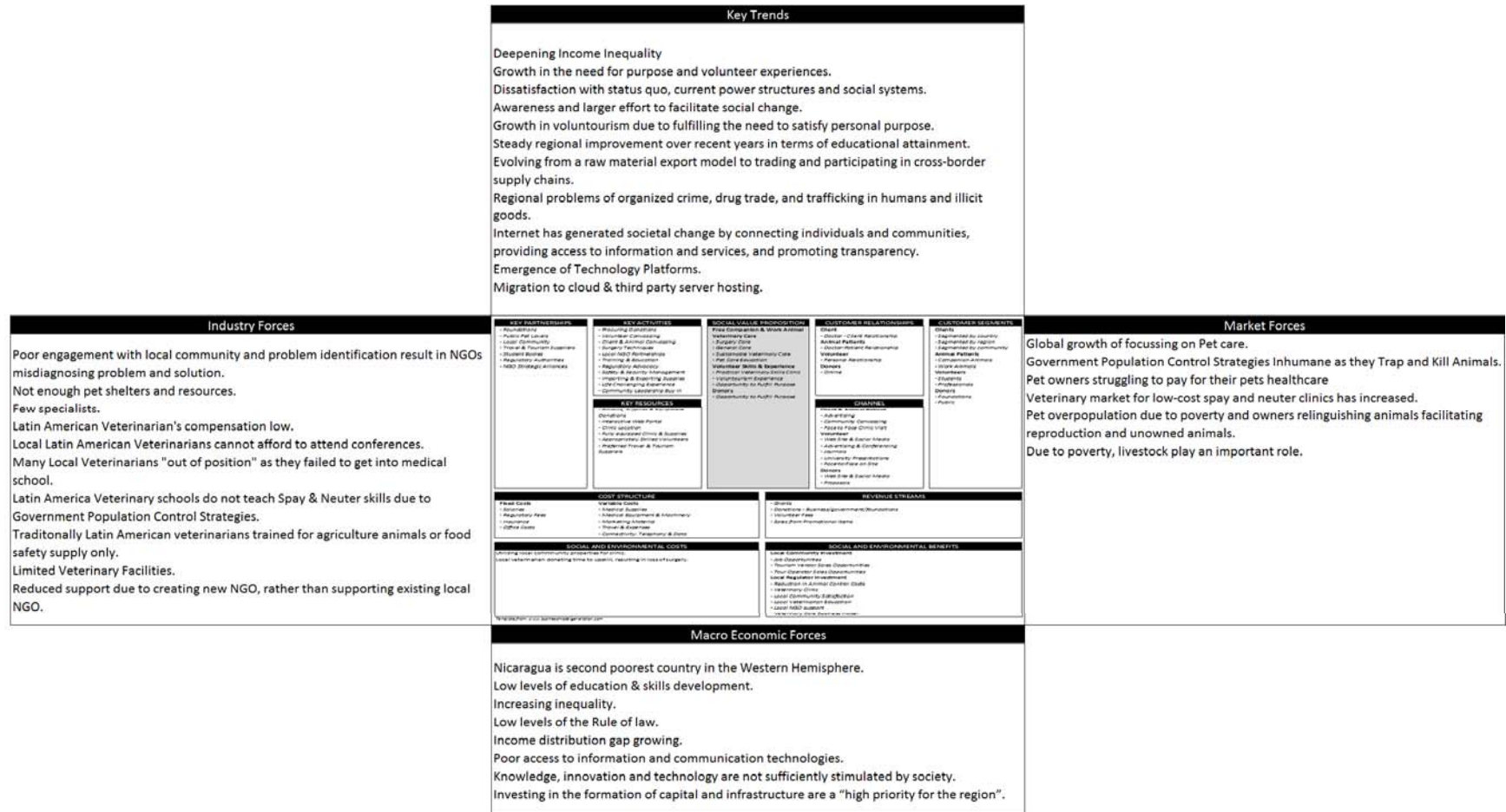


Figure 8: Business Model Environment

Operating Model Perspective

Operating Model Definition

Next, we developed an operating model to describe how we would execute the business model. We considered the following operating model perspectives:

1. **Business process standardization** – The extent to which a business process and its enabling systems are defined and executed identically across the organization.
2. **Data integration** – The extent to which processes are linked by the movement of data. Linkage may be end-to-end, one process to the next, or across processes (to present a single face to the customer).

Data Integration – High

Based on the business model, our data integration requirements are going to be high. We require data to facilitate planning, which will reduce costs, ensure no wastage of supplies, and ensure availability of resources (including the necessary funding). Examples of data requirements include:

- End-to-end transaction processing data
- Data integration across business functions: donors, volunteers, operations, procurement, and management
- Donors and volunteers forecasting data to fund animal treatment demand
- Procurement forecasting data to supply animal treatment demand and reduce inventory holding costs
- Volunteer forecasting data to resource animal treatment demand and supplemental revenue
- Operational data from operations to continually drive efficiencies across all clinics by reducing animal treatment turnaround time
- All business units to share data
- A packaged system integrating all functions

Process Standardization – High

Our process standardization requirements are also going to be high. We will focus on processes to minimize time the veterinarian spends treating animals, waiting for pets, and administering care via the most optimal supplies, techniques, and equipment.

In order to replicate the model in other areas and countries, we will focus on driving efficiencies and economies of scale, including:

- Ensure business units perform the same processes across all clinics
- Replicate multiple clinic models in every area and country
- Introduce efficient animal workflow through clinics, ensuring all functions are planned correctly to ensure the veterinarian maximizes treatment time

- Ensure appropriate supplies are available at lowest inventory levels
- Implement integrated supply chain across all areas, countries, and functions
- Create interdependencies between business units (e.g., volunteers, donations, procurement, management, and operations)
- Constantly reengineer to introduce greater standardization and automation
- Introduce shared services (e.g., donations, procurement, forecasting, planning)
- Minimize variation

Based on the operating model, we created a core diagram (see figure 9) to visually articulate the relationships between stakeholders, key processes, key data, channels, technology, and functions.

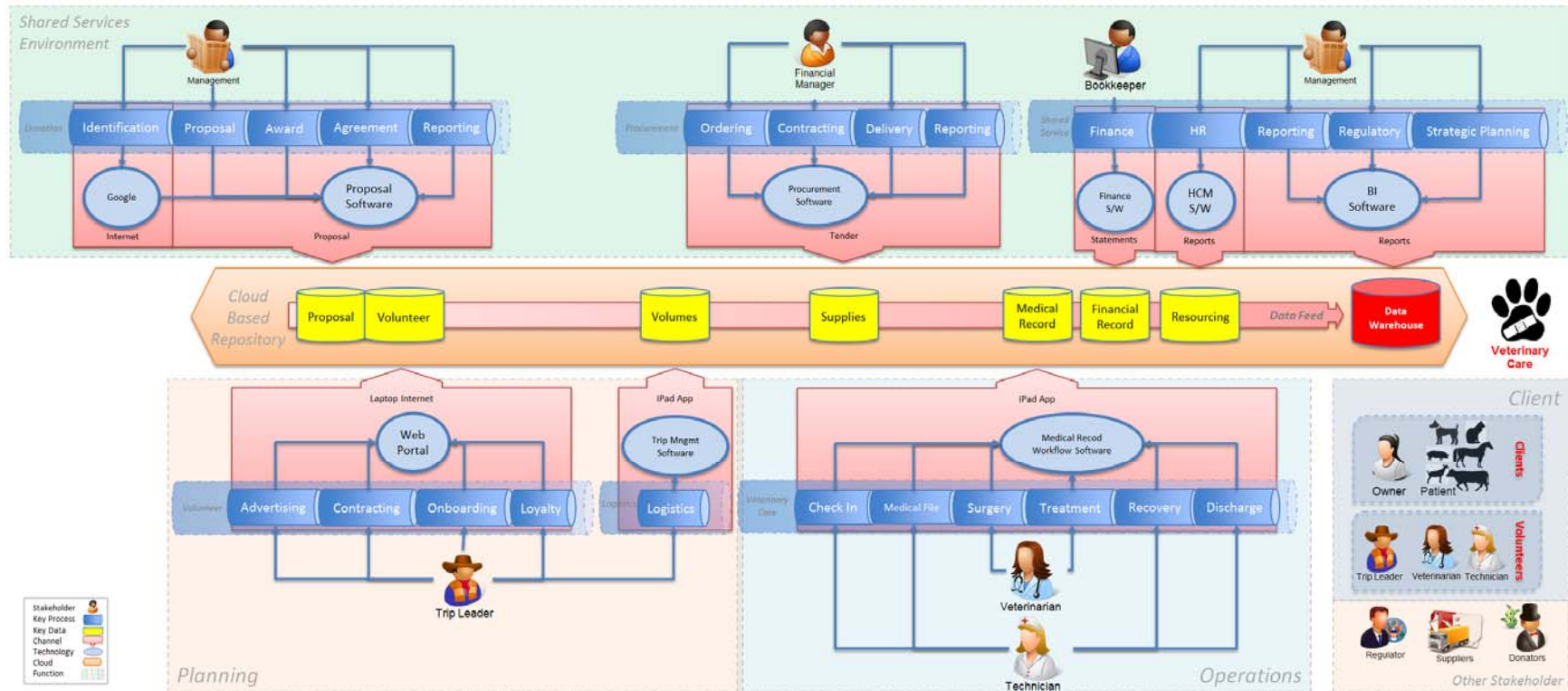


Figure 9: Core Diagram

Strategy Perspective

We created a startup strategy using the business model, operating model, and goals as key input as well as the objective map; Kaplan & Norton strategy map; Strengths, Weaknesses, Opportunities, Threats (SWOT) analysis; Business Motivation Model; value network map; and value map.

Objective Map

We designed the objective map (see figure 10) to clearly articulate the course of actions that would plausibly result in achieving our goals.

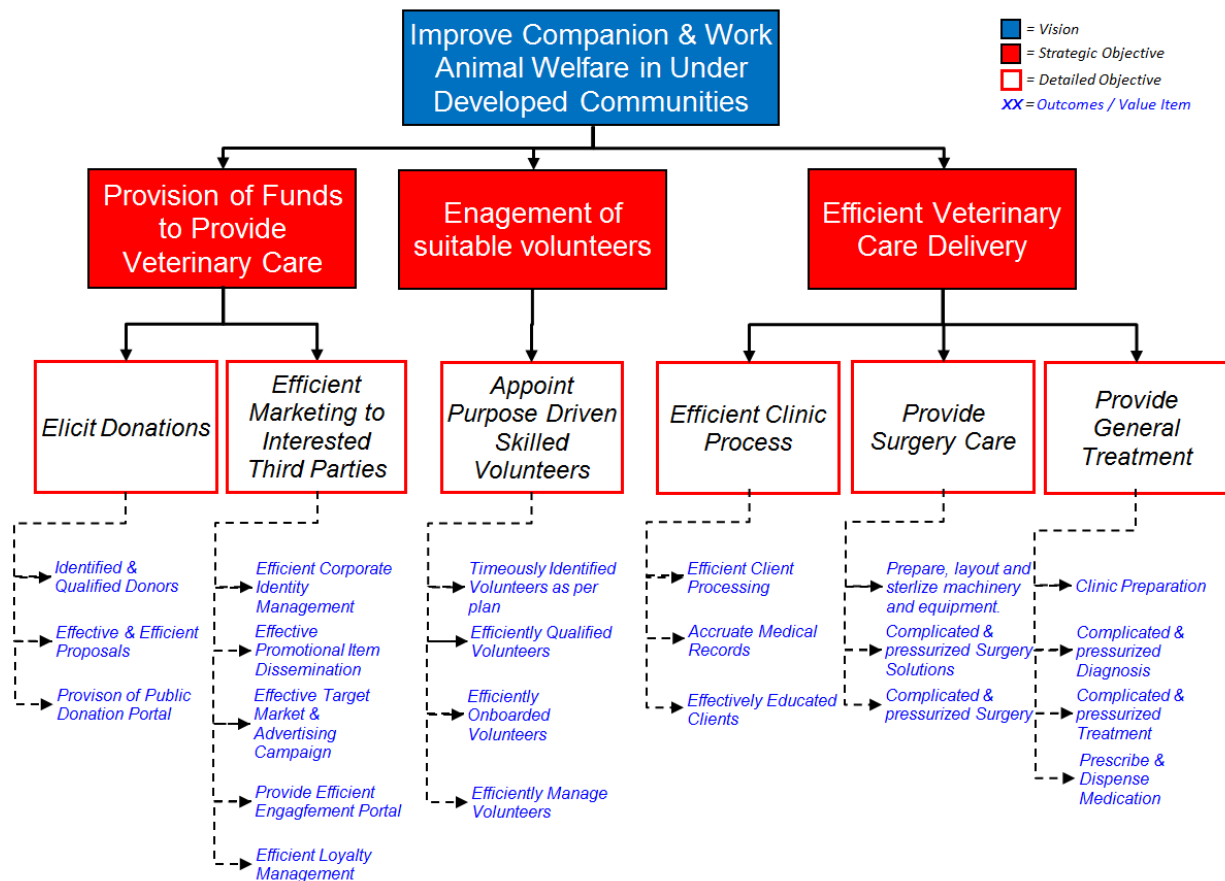


Figure 10: Objective Map

We obtained tremendous value from the objective map as it facilitated our traceability from the vision all the way to the value items within each value stream. It ensured that we covered all the key decisions to deliver our vision, mission, and goal.

Kaplan & Norton Strategy Map

To integrate the objectives, we applied the Kaplan & Norton's strategy mapping technique and tied each objective to one of the four perspectives: financial, customer, internal, and innovation/learning (see figure 11).

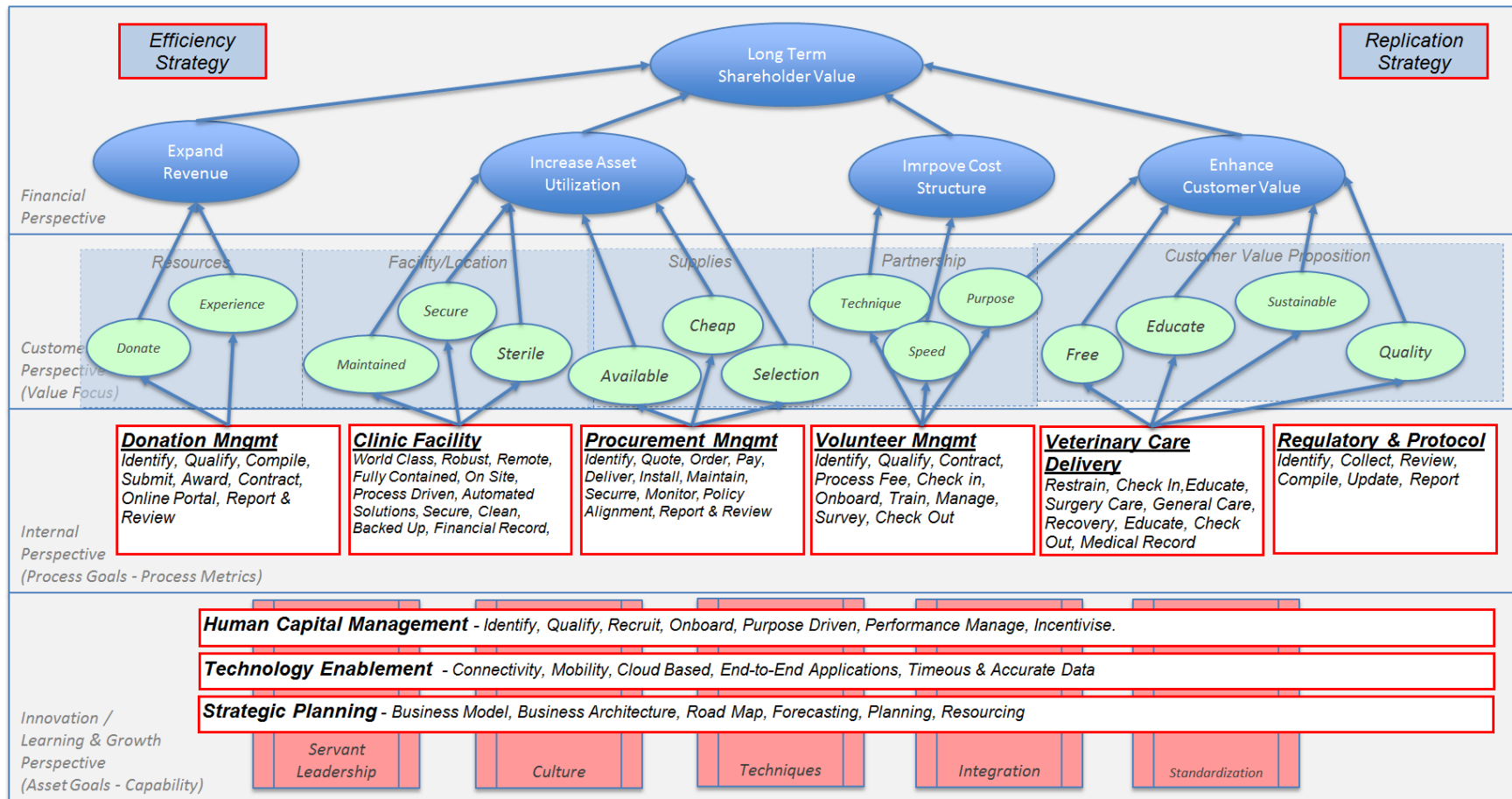


Figure 11: Kaplan & Norton Strategy Map

This approach, in the future, will provide the ability for strategic objectives and metrics to be married to each other, enabling us to better understand how the metrics we set as targets relate to and support the organization's objectives.

SWOT Analysis

Using the objective map outcomes, we completed a SWOT analysis (see figure 18) to inform us of any further strategic changes required and to identify any corrective actions that may be required during the implementation phase.

External	Opportunities			Threats			Market Environment
	Partner with Existing NGO	Increase in Education Desire in Latin America	Stronger digital awareness & Reach	Drug Import Restrictions	Poor access to information and communication technologies.	Reduced community support due to creating new NGO, rather than supporting existing local NGO.	
	Growth in Voluntourism	Internet has increased human connectivity & Awareness	Not enough Veterinary Resources & Infrastructure in Latin America	Local Government Instability	Local Infrastructure Unstable (Water, Electricity, Plumbing)		
	Increase in Awareness or Social Issues	Emergency of technology platforms, remote access and mobility	Global growth of focussing on Pet care.	Low levels of the Rule of law.			
	Government Population Control Strategies Inhumane as they Trap and Kill Animals.	Strength of \$		Organised Crime, drug trade & trafficking			

Figure 12: SWOT Analysis

Business Motivational Model Mapping

We consolidated the strategy into a table (see figure 13) and applied the Business Model Motivation (BMM) categorizations to complete a final check and ensure traceability.

BMM	Level	Type	Description	Perspective	Area
End	1	Vision	Improve companion and work animal welfare in under-developed communities		
End	2	Goal	Setup a nonprofit business to elicit donations from donors to support business	Financial	Finance
End	3	Objective	Successfully elicit funds		
End	2	Goal	Efficiently provide the required corporate identity and marketing campaigns to create the required stakeholder awareness	Internal	Operational
End	3	Objective	Create efficient marketing to interested third parties		
End	2	Goals	Obtain fee and sales income from volunteers for experience, skills, and promotional items	Financial	Finance
End	3	Objective	Appoint purpose-driven, skilled volunteers		
End	2	Goal	Make use of appropriate paying volunteers to deliver health care and provide practical skills training for volunteers	Customer	Value
End	3	Objective	Appoint purpose-driven, skilled volunteers		
End	2	Goal	Identify and setup a world-class, robust, remote, and fully contained onsite process-driven clinic facility to facilitate the delivery of the health care	Internal	Operational
End	3	Objective	Provide maintained property		
End	2	Goal	Implement efficient processes to improve the turnaround time and controls of cared for animals	Internal	Operational
End	3	Objective	Efficient clinic process		
End	2	Goals	Provide education to clients to improve the awareness of companion and work animal welfare	Customer	Value
End	3	Objective	Efficient clinic process		
End	2	Goal	Provide veterinary care to companion and work animals	Customer	Value
End	3	Objective	Provide surgery care		
End	2	Goal	Provide veterinary care to companion and work animals	Customer	Value
End	3	Objective	Provide general treatment		
End	2	Goal	Implement efficient processes to improve the turnaround time and controls of cared for animals	Internal	Operational
End	3	Objective	Accurate forecasting, planning, and resourcing		
Means	1	Mission	Create world-class, robust, and fully equipped clinics in under-developed communities enabled by a skilled team of volunteers and world-class equipment, medicines, and training, resulting in educated clients and improved health of companion and work animals		
Means	2	Strategies	Provision of funds to provide veterinary care		
Means	3	Tactics	Focus marketing campaign to volunteers and public		
Means	3	Tactics	Drive efficiency and effectiveness of proposal management capability to ultimately offer free trips to volunteers and provision of donated equipment and supplies		
Means	3	Tactics	Initially fund the business by internship fees and donations; thereafter, donations will be the main contributor and internships could be offered free		
Means	3	Tactics	Plan to have United States-based businesses directly providing free veterinary services		
Means	2	Strategies	Engagement of suitable volunteers		
Means	3	Tactics	Contact all veterinary schools and request presentation invites to all fourth-year rotations		
Means	3	Tactics	Cover travel expenses for professors and students to attend clinics on how to support marketing efforts		
Means	3	Tactics	Build strong partnerships with professors, students, and suppliers, resulting in access to latest veterinary science updates		
Means	3	Tactics	Obtain required volunteers by offering high-quality, safe, under-developed world experiences with luxury accommodations and quality foods		
Means	3	Tactics	Ensure volunteers are not hungry at clinics, ensuring volunteer satisfaction and the required productivity and quality medicine		
Means	3	Tactics	Provide quality internships through appropriate instructions and experienced surgery techniques		
Means	2	Strategies	Efficient veterinary care delivery		

BMM	Level	Type	Description	Perspective	Area
Means	3	Tactics	Utilize volunteers who can quickly perform in harsh environments and provide emergency innovative solutions on under-nourished animals that require above-average, complicated, and immediate diagnosis, surgery, and care		
Means	3	Tactics	Use automation technology to plan, schedule, capture, monitor workflows, and report all medical cases and supplies throughout the clinic process. The technology should be mobile, robust, water proof, remote access and the ability to replicate functionality for large data uploads. Users to be able to access all software and databases in the cloud		
Means	3	Tactics	Focus on community engagement, including community leaders, and strive to clearly understand their needs and identify how to involve them		
Means	3	Tactics	Drive efficient surgical techniques to increase volumes of animals treated and lower the cost of anesthetics		
Means	3	Tactics	Set up a local clinic in the poorest areas in each country		
Means	3	Tactics	Use local veterinarians to teach effective spay and neuter techniques		
Means	3	Tactics	Assist governments to change their trap/kill/spay/neuter policy to a more humane population control strategy		
Means	3	Tactics	Promote a general sense of compassion toward animals through community education programs		

Figure 13: Business Motivational Model

Value Network Map

In order to identify the core value exchanges taking place between key stakeholders, we mapped a value network diagram (see figure 14).

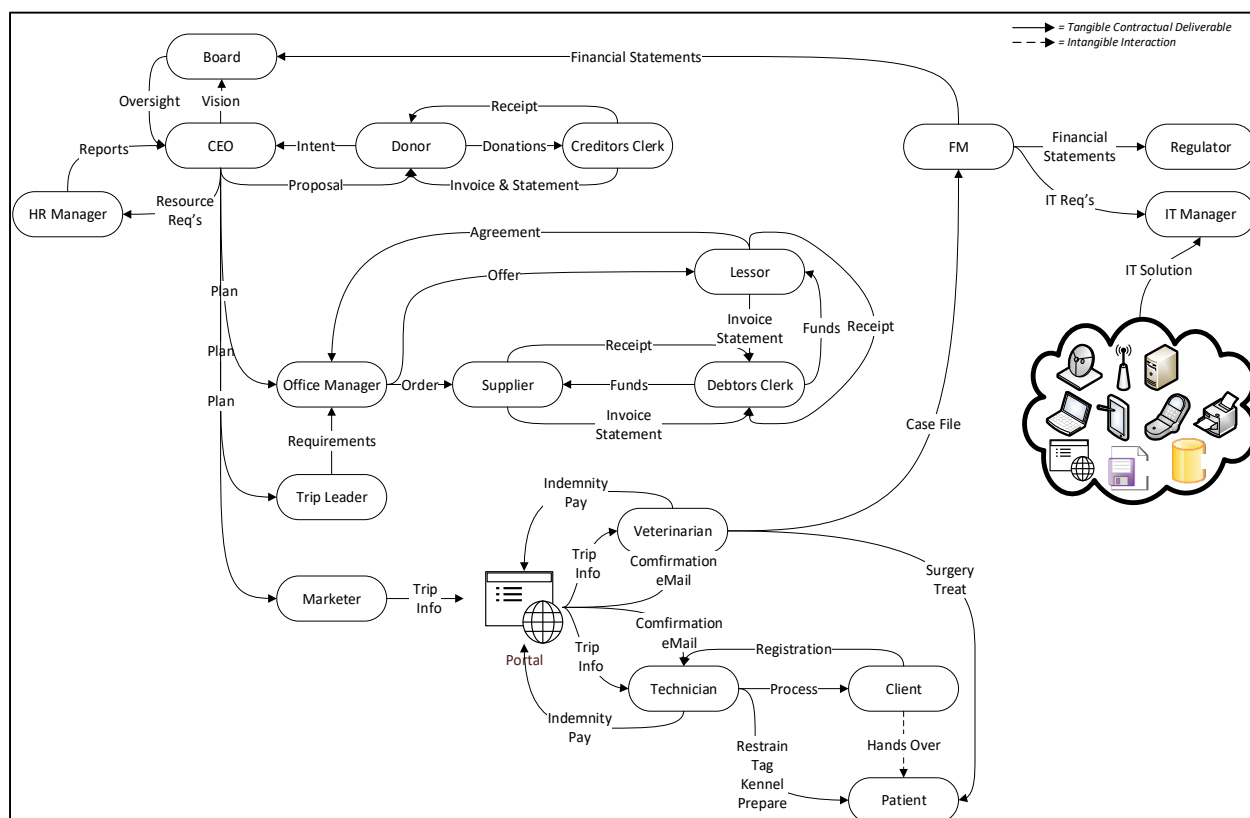


Figure 14: Value Network Diagram

Value Mapping

We used a value mapping matrix (see figure 15) as a basis for identifying the value streams. The goals, outcomes, value items, and objectives (from the value mapping matrix) helped ensure the required traceability back to the vision, mission, goals, and strategy. For this table, we only included the core value streams that supported the primary strategic objectives.

Value Stream	Description	Stakeholder	Triggering Stakeholder	Detailed Objective	Primary Value Item	Outcome	Outcome Description	Community of Interest	#	Goals
Procure donations	Identify qualified donors and obtain their proposal requirements; thereafter, compile and submit proposal, and obtain finance to facilitate the operation of the business	Internal	Financial manager	Elicit funds	Funds	Qualified donor list	Efficiently identify and qualify a list of appropriate donors to submit proposals to	Donors	1	Setup a nonprofit business to elicit <u>donations</u> from donors to support business
						Effective proposal	Efficiently and effectively identify proposal requirements and compile and submit proposal to qualified list of donors	Proposal writers	1	Setup a nonprofit business to elicit <u>donations</u> from donors to support business
						Public donation portal	Provide an opportunity for public to invest in pets' wellness and health	Public	1	Setup a nonprofit business to elicit <u>donations</u> from donors to support business
Manage volunteers	Successfully identify, qualify and onboard volunteers, to deliver efficient and effective veterinary care	Internal	Trip leader	Appoint purpose driven skilled volunteers	Volunteers	Identified list of volunteers	Timeously identify list of volunteers as per plan	Trip leader	3	Make use of appropriately paying <u>volunteers</u> to deliver health care and provide practical skills training for other volunteers
						Qualified volunteers	Efficiently qualify volunteers	Trip leader	3	Make use of appropriately paying <u>volunteers</u> to deliver health care and provide practical skills training for other volunteers
						On boarded volunteers	Efficiently onboard volunteers	Volunteers	2	Obtain <u>fee and sales income</u> from volunteers for experience, skills and promotional items
						Volunteer management	Efficiently manage volunteers	Volunteers	7	Implement <u>efficient processes</u> to improve the turnaround time and controls of cared for animals
Manage patient client	Provide an efficient and effective process to identify, attract, process, educate, and discharge clients and patients.	Internal	Trip leader	Efficient clinic process	Client and patient processing	Client and patient process	Efficiently queue, route, and monitor clients and patients throughout process	Client and patient	7	Implement <u>efficient processes</u> to improve the turnaround time and controls of cared for animals
						Accurate medical record	Accurately and timeously capture medical record	Financial manager	7	Implement <u>efficient processes</u> to improve the turnaround time and controls of cared for animals
						Client education	Effectively educate clients on patient welfare	Client	10	Provide <u>education</u> to clients to improve the awareness of companion and work animal welfare

Perform surgery	Provide timeous and accurate diagnosis of complicated cases on under nourished patients and apply relevant surgery techniques	Internal	Technician	Provide surgery care	Complicated and pressurized surgery care	Surgery preparation	Prepare machinery and layout equipment; sterilize all machinery and equipment	Technician	9	Provide veterinary care to companion and work animals
						Under nourished patient surgery diagnostic knowledge	Ability to diagnose complicated surgery cases in a pressurized environment	Patient	9	Provide Veterinary Care to companion and work animals
						Complicated Surgery Techniques	Ability to identify surgery techniques for complicated cases and treat in a pressurized environment	Veterinarian	9	Provide Veterinary Care to companion and work animals
Treat patient	Provide timeous and accurate diagnosis of complicated cases on under-nourished patients and apply relevant treatment	Internal	Technician	Provide general treatment	Under-nourished patient medical care	Clinic preparation	Prepare machinery and layout equipment; sterilize all machinery and equipment	Technician	9	Provide veterinary care to companion and work animals
						Under-nourished patient treatment diagnostic knowledge	Ability to diagnose complicated cases in a high-pressure environment	Patient	9	Provide veterinary care to companion and work animals
						Complicated medical treatment	Ability to identify treatment for complicated cases and treat in a pressurized environment	Veterinarian	9	Provide veterinary care to companion and work animals
						Prescribe and Dispense Medication	Prescribe and Dispense Medication	Patient	9	Provide veterinary care to companion and work animals

Figure 15: Value Mapping Matrix

Having established clear traceability between the vision and key outcomes, we commenced with mapping the core business architecture maps, including the value stream map, capability map, information map, and organization map.

Value Perspective

Figure 16 is a detailed list of value streams and descriptions that was the key output from the value mapping matrix defined in the previous section.

#	Value Stream	Description
1	Procure donations	Identify qualified donors and obtain their proposal requirements. Thereafter, compile and submit proposal as well as obtain finance to facilitate the operation of the business
2	Establish and maintain property	Identify suitable location for clinic, engage with owner, and negotiate and approve lease agreement; ensure the property is well maintained for duration of trip
3	Procure supplies	Timely and fit-for-purpose provision of supplies and equipment that are well maintained and stored at the most optimum stock levels
4	Procure services	Procure travel services, within travel policy, while maximizing the use of travel agreements and loyalty programs
5	Manage logistics	Accurately forecast, plan, and resource trips

#	Value Stream	Description
6	Manage volunteers	Successfully identify, qualify, and onboard volunteers to deliver efficient and effective veterinary care
7	Manage patient client	Provide an efficient and effective process to identify, attract, process, educate, and discharge clients and patients
8	Perform surgery	Provide timely and accurate diagnosis of complicated cases on under-nourished patients and apply relevant surgery techniques
9	Treat patient	Provide timely and accurate diagnosis of complicated cases on under-nourished patients and apply relevant treatments
10	Regulatory compliance	Provide regulatory reporting to efficiently manage compliance
11	It enablement	Provide an end-to-end technology solution for remote access in a “dirty and wet” environment
12	Financial management	Provide an accurate and timely record of the financial state of the business
13	Human capital management	Efficiently identify, recruit, onboard, train, and manage employees with the right motivation and skills to work in remote destinations
14	Business transformation	Effective business transformation
15	Marketing management	Identify and efficiently engage with potential new volunteers to meet business demand

Figure 16: Value Stream List

As shown in figures 17 through 21, we mapped the core value streams to the business capabilities that directly support the business objectives.

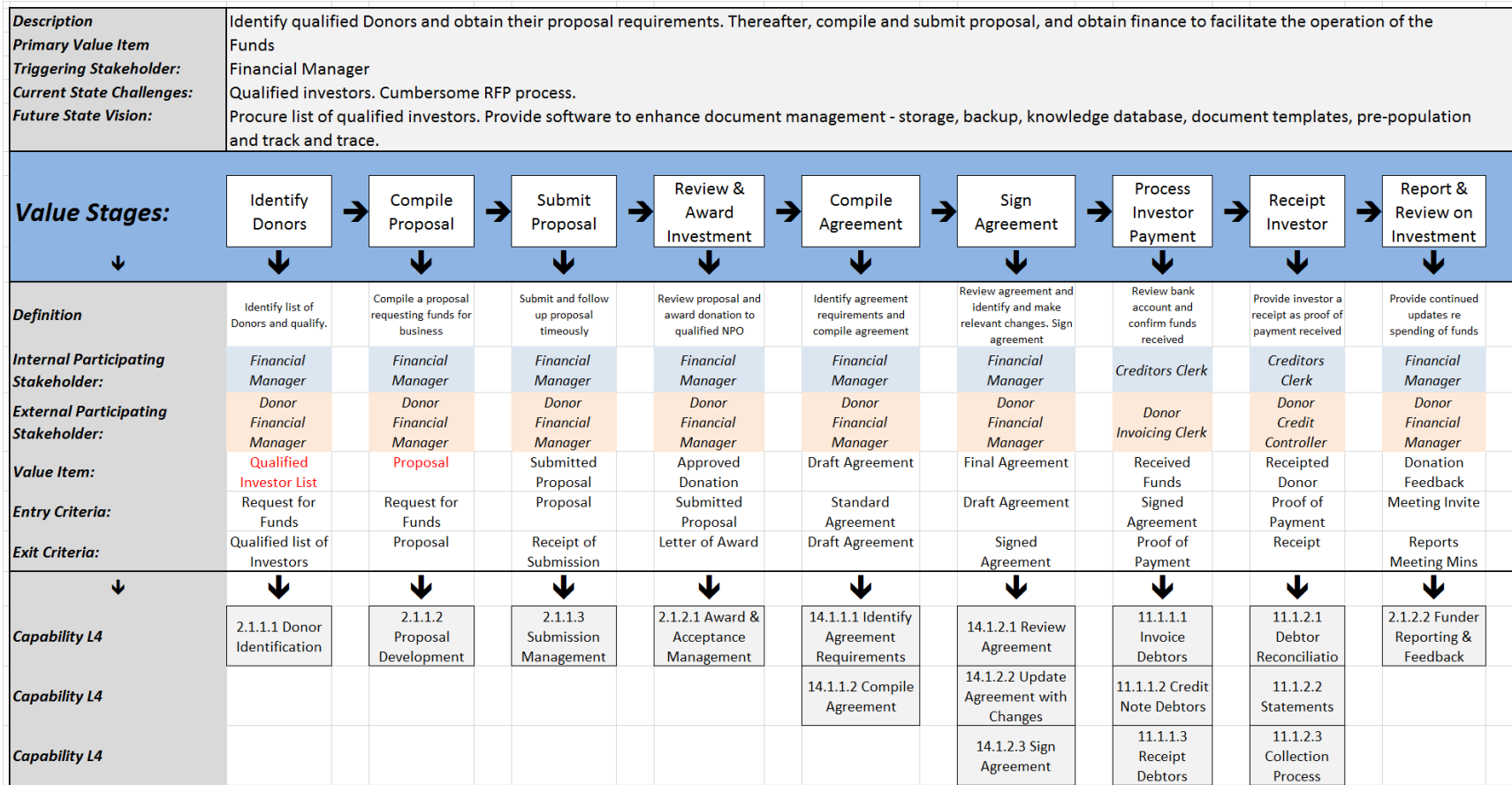


Figure 17: Procure Donations Value Stream-to-Capability Cross-Mapping

Graceful Paws: An Example of How to Apply Business Architecture in a Startup Organization

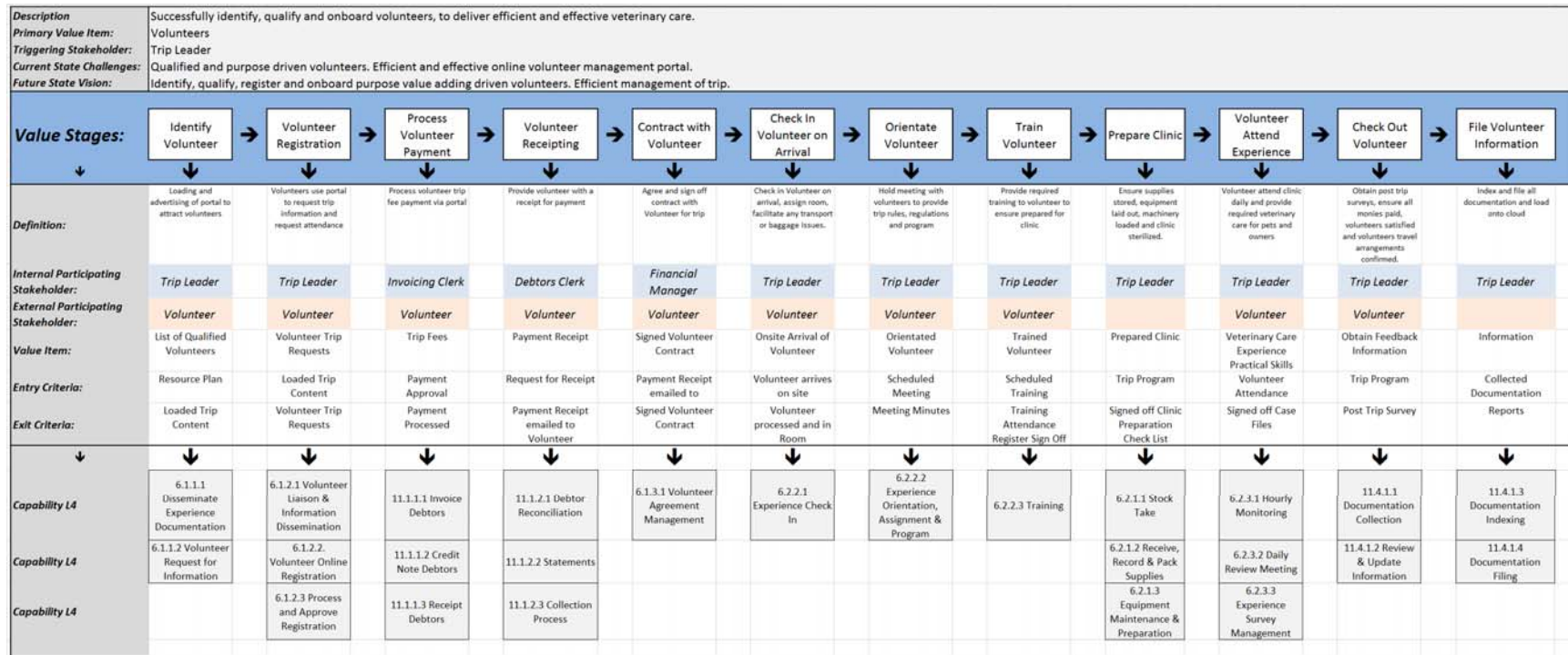


Figure 18: Manage Volunteer Value Stream-to-Capability Cross-Mapping

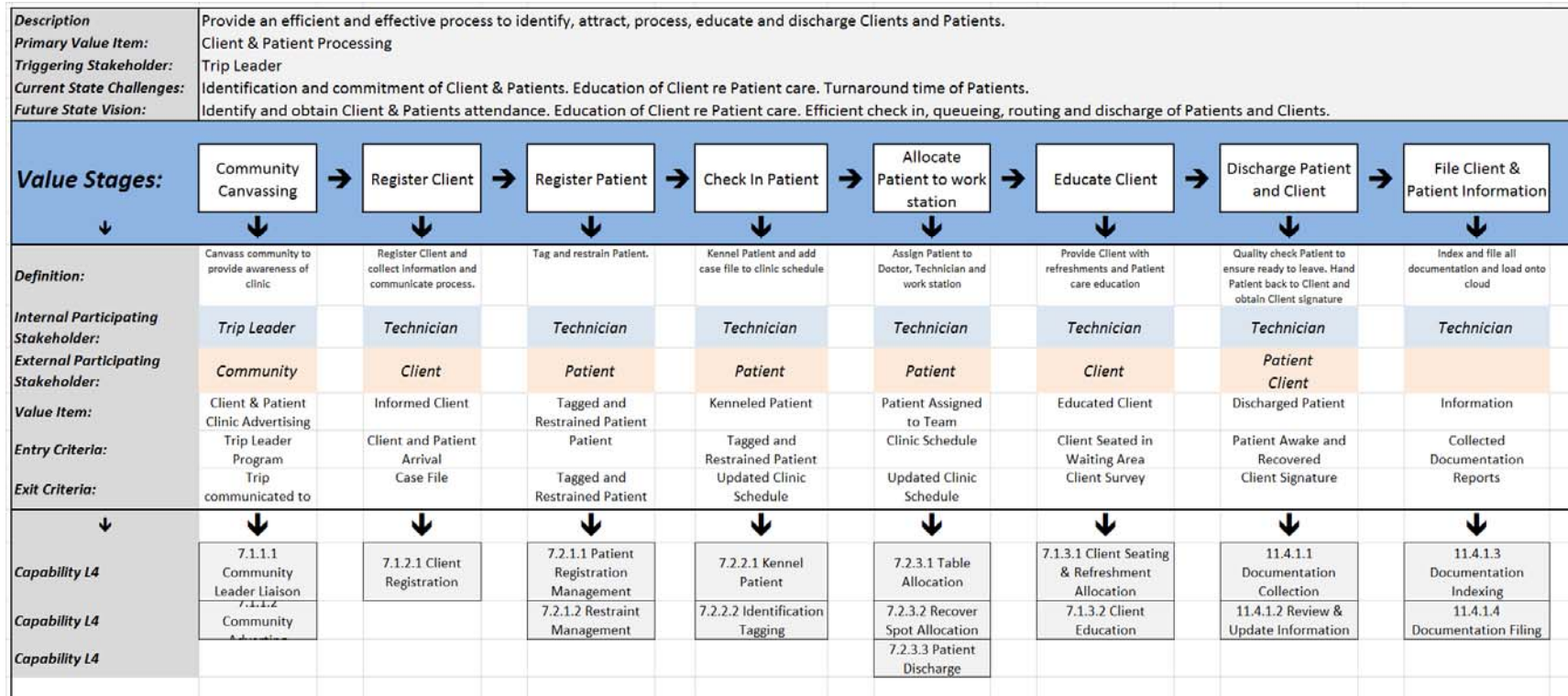


Figure 19: Manage Patient Donations Value Stream-to-Capability Cross-Mapping

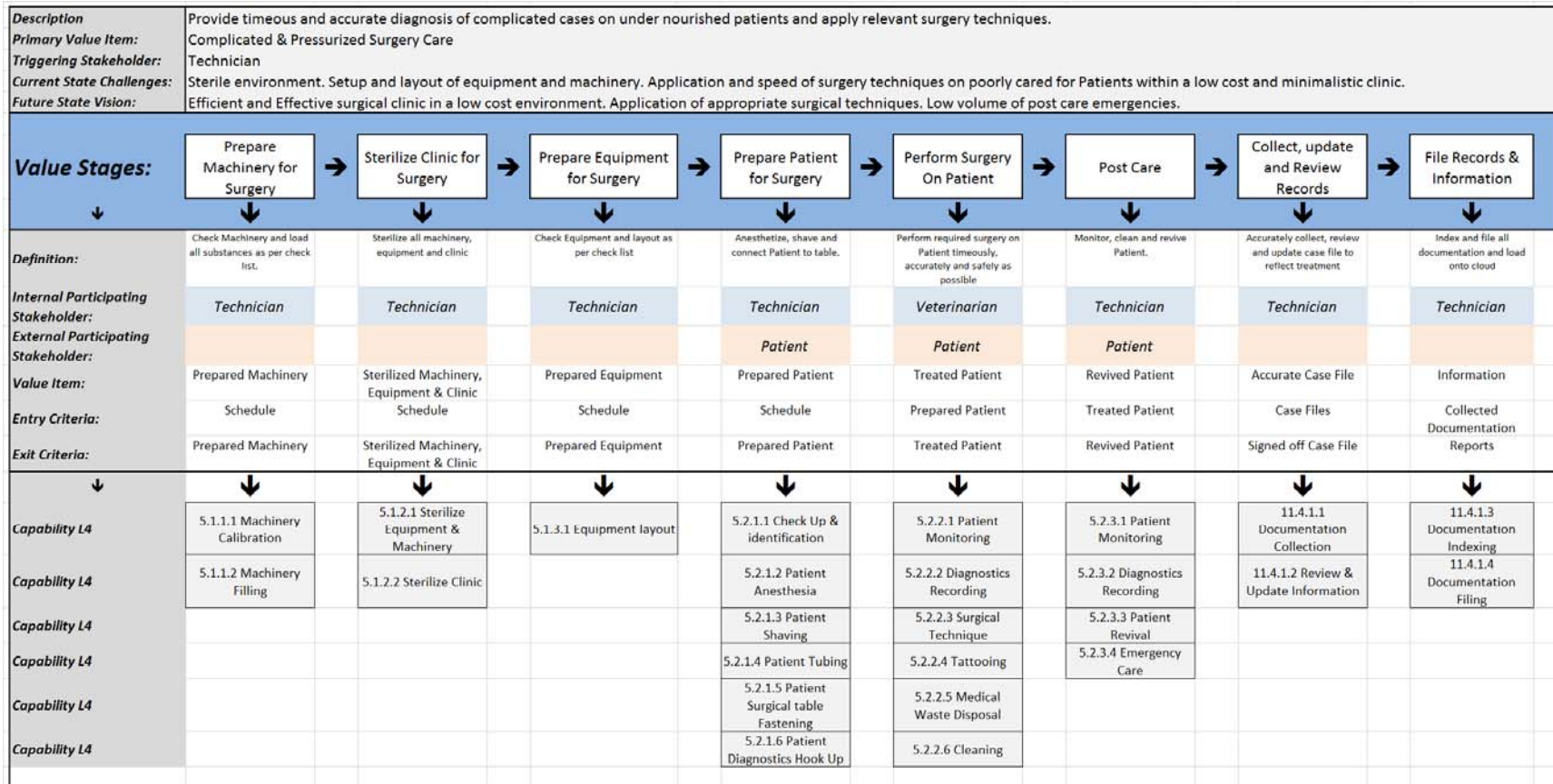


Figure 20: Perform Surgery Value Stream-to-Capability Cross-Mapping

Description	Provide timeous and accurate diagnosis of complicated cases on under nourished patients and apply relevant treatment.									
Primary Value Item:	Undernourished Patient Medical Care									
Triggering Stakeholder:	Technician									
Current State Challenges:	Sterile environment. Setup and layout of equipment and machinery. Treatment of poorly cared for Patients within a low cost and minimalistic clinic.									
Future State Vision:	Efficient and Effective treatment within clinic in a low cost environment. Application of appropriate treatments. Low volume of post care emergencies.									
Value Stages:	Prepare Machinery for Surgery	Sterilize Clinic for Surgery	Prepare Equipment for Surgery	Diagnose	Treatment	Prescription	Dispensing	Collect, update and Review Records	File Records & Information	
Definition:	Check Machinery and load all substances as per check list.	Sterilize all machinery, equipment and clinic	Check Equipment and layout as per check list	Inspect Patient and perform tests to diagnose problem and treatment plan	Based on diagnosis apply treatment	Based on diagnosis prescribe medicine	Based on prescription dispense medicine	Accurately collect, review and update case file to reflect treatment	Index and file all documentation and load onto cloud	
Internal Participating Stakeholder:	Technician	Technician	Technician	Veterinarian	Veterinarian	Veterinarian	Veterinarian	Technician	Technician	
External Participating Stakeholder:				Patient	Patient	Owner	Owner			
Value Item:	Prepared Machinery Schedule	Sterilized Machinery, Equipment & Clinic Schedule	Prepared Equipment Schedule	Prepared Patient Schedule	Treated Patient	Prescription	Medication	Accurate Case File	Information	
Entry Criteria:					Diagnosis	Diagnosis	Prescription	Case Files	Collected Documentation	
Exit Criteria:	Prepared Machinery	Sterilized Machinery, Equipment & Clinic	Prepared Equipment	Diagnosis	Treated Patient	Prescription	Medication	Signed off Case File	Documentation Reports	
Capability L4	5.1.1.1 Machinery Calibration	5.1.2.1 Sterilize Equipment & Machinery	5.1.3.1 Equipment layout	5.3.1.1 Check Up & identification	5.3.2.1 Administer Vaccinations	5.3.3.1 Prescribe Medication	5.3.3.2 Dispense Medication	11.4.1.1 Documentation Collection	11.4.1.3 Documentation Indexing	
Capability L4	5.1.1.2 Machinery Filling	5.1.2.2 Sterilize Clinic		5.3.1.2 Testing	5.3.2.2 Administer Medical Care			11.4.1.2 Review & Update Information	11.4.1.4 Documentation Filing	
Capability L4				5.3.1.3 Analysis	5.3.2.3 Record Care Given					
Capability L4				5.3.1.4 Record Diagnosis						

Figure 21: Procure Donations Value Stream-to-Capability Cross-Mapping

By cross-mapping capabilities to each value stream, we could seed the creation of the capability map (detailed in the next section), which provided a simple and consistent way to understand, organize, and communicate the work.

Capability Perspective

We followed a parallel iterative process and mapped the capability and value maps concurrently. Both maps informed each other, requiring constant updates as we progressed with the mapping. The following level 1, 2, 3 and 4 capability maps were the result of this mapping exercise.

Level 1 and 2 Capability Map

The value streams identified the level 4 capabilities, which were then logically grouped into the following level 1 and 2 capability map, which clearly identified the most important customer-facing capabilities (those that differentiate the organization).

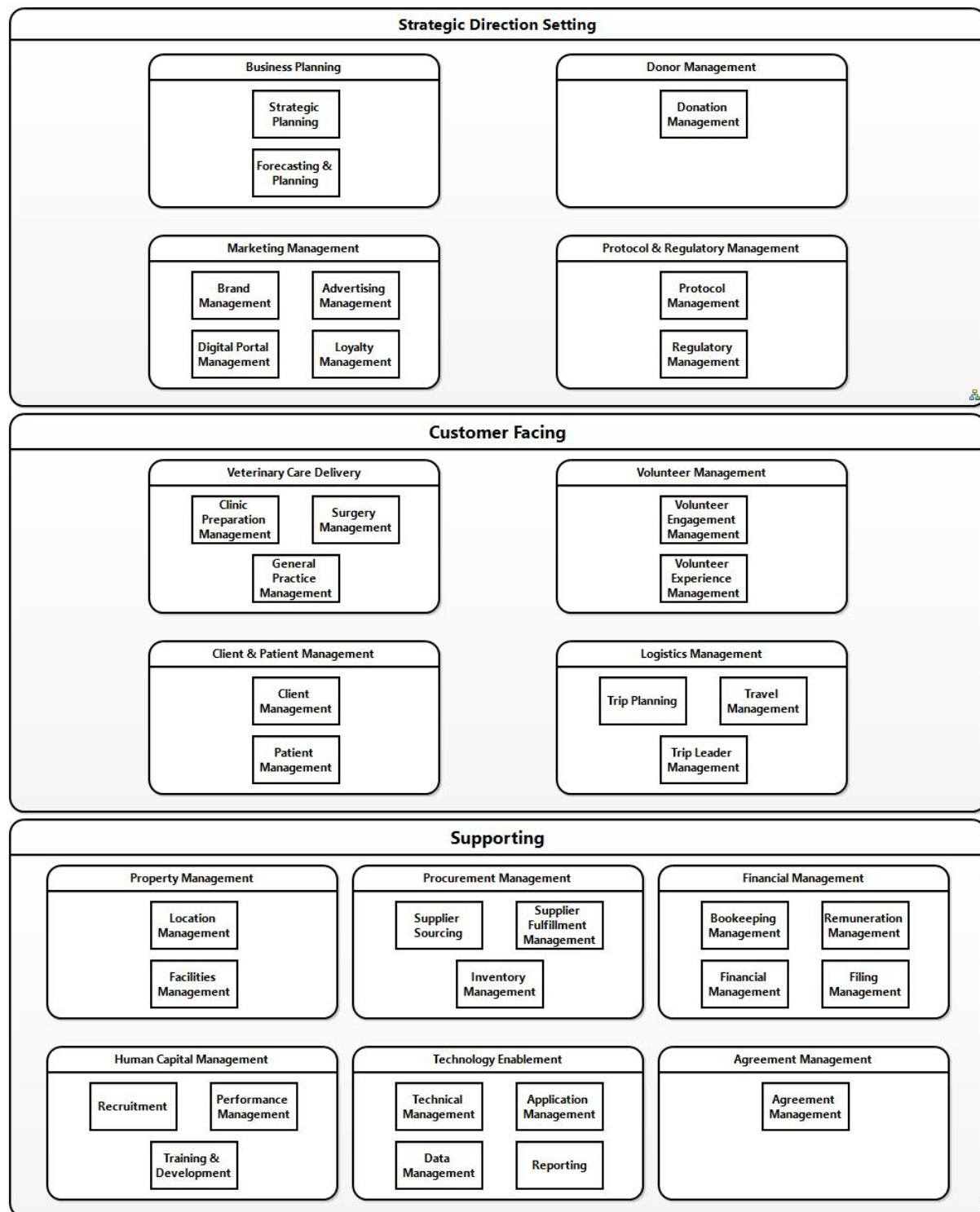


Figure 22: Level 1 and 2 Capability Map

Level 1 and 2 Capability Definitions

The definitions shown in figure 23 were compiled for each capability. To keep this white paper concise, the data below does not include the full list of capabilities; it only refers to the customer-facing capabilities.

Tier	Level	Capability	Definition
2	1	Veterinary care delivery	The ability to medically or surgically treat companion and work animals
2	2	Clinic preparation management	The ability to clean, sterilize, calibrate, and fill the clinics with supplies, machinery, and equipment for veterinary care fulfillment within required time frames
2	2	Surgery management	The ability to surgically treat companion and work animals
2	2	General practice management	The ability to medically treat companion and work animals
2	1	Volunteer management	The ability to leverage organization's resources on par with fundraising/development and human resources
2	2	Volunteer engagement management	The ability to define, develop, and implement processes to communicate with and engage the community
2	2	Volunteer experience management	The ability to define, develop, and implement a process to understand and manage the volunteers' interactions with and perceptions about the organization and its brand
2	1	Client and patient management	The ability to define, develop, and implement all the systems, processes, and applications needed to manage the client and patient relationship
2	2	Client management	The ability to define, develop, and implement all the systems, processes, and applications needed to manage the client relationship
2	2	Patient management	The ability to define, develop, and implement all the systems, processes, and applications needed to patient the client relationship
2	1	Logistics management	The ability to plan, implement, and control the efficient and effective forward and reverse flow and storage of inventory, equipment, services, and related information between the point of origin and the point of consumption to meet clients' requirements
2	2	Trip planning	The ability to create a detailed plan for the journey, specifically a list of places to visit, travel plan, an account of the journey, and record of the travel
2	2	Travel management	The ability to manage the organization's strategic approach to travel (travel policy), the negotiations with all vendors, day-to-day operation of the corporate travel program, traveler safety and security, credit card management, and travel and expenses (T&E) data management
2	2	Trip leader management	The ability to manage all the day-to-day operations of the enterprise

Figure 23: Capability Definition Table

Level 1, 2, 3, and 4 Capability Map – Customer-Facing Tier

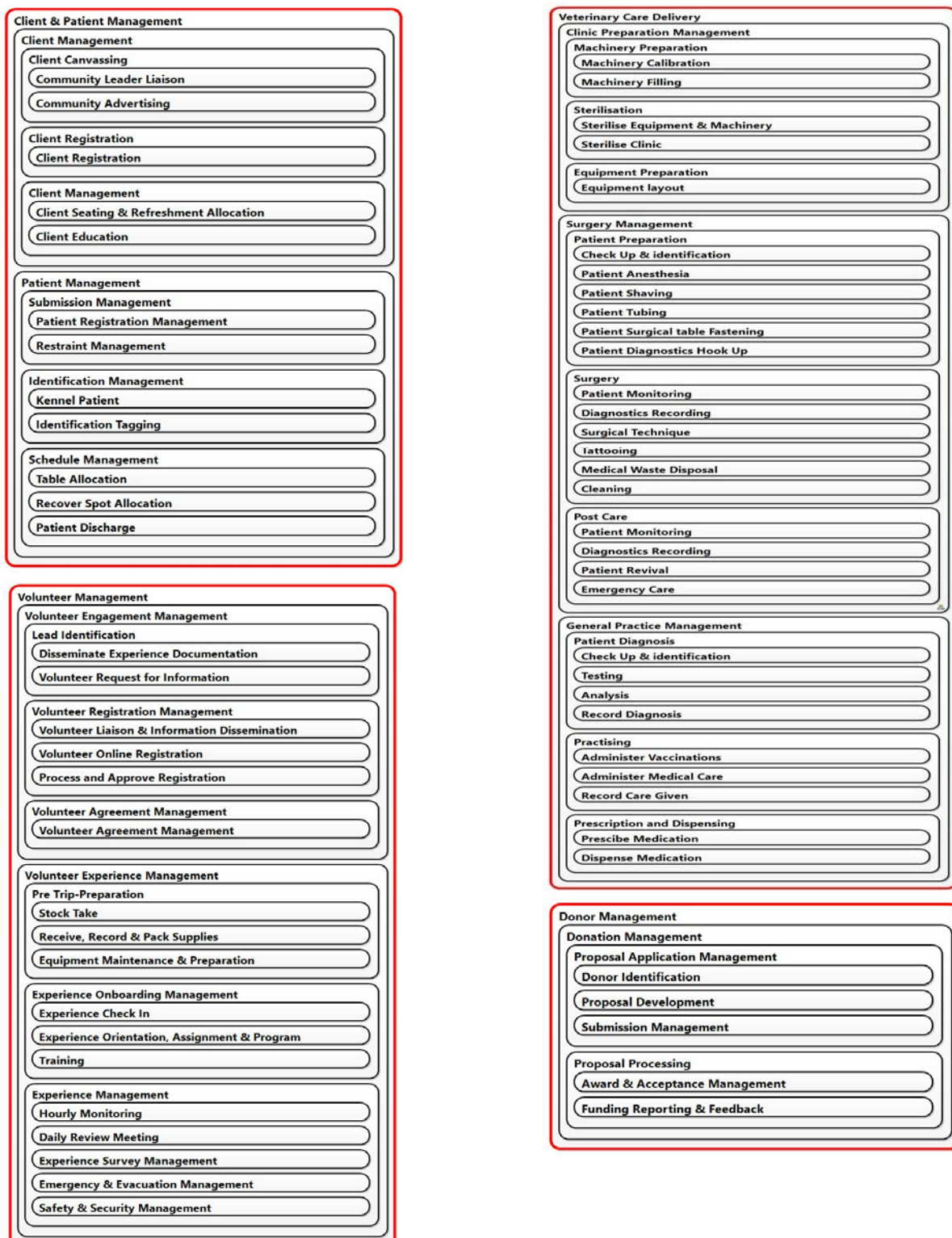


Figure 24: Level 1, 2, 3, and 4 Capability Map – Customer-Facing Tier

Information Perspective

Using the level 4 capabilities identified by the value stream map, we could easily identify the required information concepts. The information concepts were categorized into primary concepts, then the additional concepts associated with the primary concepts were identified. The associated stakeholder and business capabilities were then assigned to help identify and ensure we were not missing any concepts.

The table of information concepts shown in figure 25 does not represent the complete list; it only refers to the core blueprints included in this white paper.

Level	Information Concept	Information Item	Stakeholder	Capability Level 1	Capability Level 2	Capability Level 3	Capability Level 4
1	Primary concept	Donation	Marketer	2. Donor management	2.1 Donation management		
2	Additional concept	Proposal application	Marketer	2. Donor management	2.1 Donation management	2.1.1 Proposal application management	
3	Additional concept	Proposal	Marketer	2. Donor management	2.1 Donation management	2.1.1 Proposal application management	2.1.1.2 Proposal development
3	Additional concept	Award & acceptance letter	Marketer	2. Donor management	2.1 Donation management	2.1.2 Proposal processing	2.1.2.1 Award and acceptance management
1	Primary concept	Prepared clinic	Technician	5.1 Clinic preparation management			
1	Primary concept	Surgically treated patient	Veterinarian	5.2 Surgery management			
2	Additional concept	Surgery prepared patients	Veterinarian	5.2 Surgery management	5.2.1 Patient preparation		
2	Additional concept	Patients in surgery	Veterinarian	5.2 Surgery management	5.2.2 Surgery		
1	Primary concept	Generally treated patient	Veterinarian	5.3 General practice management			
2	Additional concept	Diagnosed patient	Veterinarian	5.3 General practice management	5.3.1 Patient diagnosis		
2	Additional concept	Treated patient	Veterinarian	5.3 General practice management	5.3.2 Practicing		
2	Additional concept	Medicated patient	Veterinarian	5.3 General practice management	5.3.3 Prescription and dispensing		
1	Primary concept	Volunteer	Volunteer	6. Volunteer management			
2	Additional concept	On boarded volunteer	Volunteer	6. Volunteer management	6.1 Volunteer engagement management		
3	Additional concept	Identified leads	Volunteer	6. Volunteer management	6.1 Volunteer engagement management	6.1.1 Lead identification	6.1.1.1 Disseminate experience documentation
3	Additional concept	Registered volunteer	Volunteer	6. Volunteer management	6.1 Volunteer engagement management	6.1.2 Volunteer registration management	6.1.2.2. Volunteer online registration
1	Primary concept	Clients	Client	7. Client and patient management			
2	Additional concept	Canvassed clients	Client	7. Client and patient management	7.1 Client management	7.1.1 Client canvassing	

Level	Information Concept	Information Item	Stakeholder	Capability Level 1	Capability Level 2	Capability Level 3	Capability Level 4
2	Additional concept	Registered client	Client	7. Client and patient management	7.1 Client management	7.1.2 Client registration	7.1.2.1 client registration
2	Additional concept	Served clients	Client	7. Client and patient management	7.1 Client management	7.1.3 Client management	
1	Primary concept	Patients	Patient	7. Client and patient management			
2	Additional concept	Submitted patients	Patient	7. Client and patient management	7.2 Patient management	7.2.1 Submission management	
3	Additional concept	Registered patients	Patient	7. Client and patient management	7.2 Patient management	7.2.1 Submission management	7.2.1.1 Patient registration management
3	Additional concept	Restrained patients	Patient	7. Client and patient management	7.2 Patient management	7.2.1 Submission management	7.2.1.2 Restraint management
3	Additional concept	Kenneled patients	Patient	7. Client and patient management	7.2 Patient management	7.2.2 Identification management	7.2.2.1 Kennel patient
3	Additional concept	Tagged patients	Patient	7. Client and patient management	7.2 Patient management	7.2.2 Identification management	7.2.2.2 Identification tagging
3	Additional concept	Discharged patients	Patient	7. Client and patient management	7.2 Patient management	7.2.3 Scheduling management	7.2.3.3 Patient discharge

Figure 25: Information Map

Organization Perspective

We developed the organization map-to-capability cross-map (see figure 26) to provide visibility into the organizational structure of the business, which meets the strategic need and enables the pursuit of the collective goals on a continuing basis.

The organization map was designed to cater to a startup organization with few employees. We initially planned to have the same employees fulfilling multiple roles and possibly capabilities, at least until the business grew and additional resources could be on-boarded.

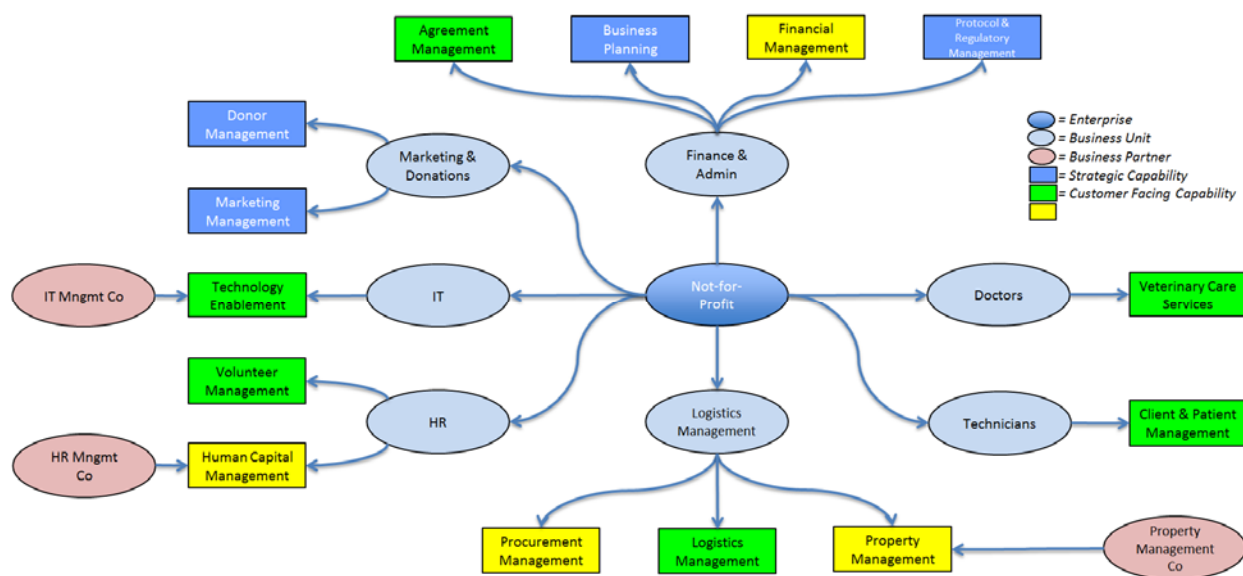


Figure 26: Organizational Map-to-Capability Cross-Map

The organization map was designed in alignment with standard business functions, capabilities, and value streams. Due to the small size of the organization, we grouped capabilities together that would not ordinarily be grouped together in larger organizations. In addition, we outsourced IT, human resources, and property management because they are non-core capabilities. As the organization grows and providing it makes financial sense, these capabilities could be introduced into the organization.

Stakeholder Perspective

We used the value streams to identify our key stakeholders. The stakeholders were classified by type, traveler, stakeholder location, value delivered, business unit, and whether they trigger a value stream. The stakeholders shown in figure 27 do not represent the complete list; they only refer to the blueprints included in this white paper.

Internal Stakeholder	Type	Traveler	Stakeholders	Value	Business Unit	Triggering Stakeholder Value Stream
Creditors clerk	Employee	No	Internal	Deliver	Finance and admin	
Debtors clerk	Employee	No	Internal	Deliver	Finance and admin	
Financial manager	Management	Yes	Internal	Deliver	Finance and admin	Procure donations Establish and maintain property Regulatory compliance Financial management
Invoicing clerk	Employee	No	Internal	Deliver	Finance and admin	
Technician	Partner	Yes	External	Deliver	Technicians	Perform surgery Treat patient
Trip leader	Partner	Yes	External	Deliver	Logistics management	Procure services Manage logistics Manage volunteers Manage patient client
Veterinarian	Partner	Yes	External	Deliver	Doctors	
External Stakeholder	Classification	Traveler	Stakeholders	Value	Business Unit	Triggering Stakeholder Value Stream
Client	Customer	N/A	External	Receive	Technicians	
Community	Customer	N/A	External	Receive	Marketing and donations	
Donor credit controller	Partner	N/A	External	Deliver	Marketing and donations	
Donor financial manager	Partner	N/A	External	Deliver	Marketing and donations	
Donor invoicing clerk	Partner	N/A	External	Deliver	Marketing and donations	
Patient	Customer	N/A	External	Receive	Technicians	

Figure 27: Stakeholder Map

Key Insights

The following list of insights highlights the major areas of learning that we gained through the process of developing the business architecture for Graceful Paws:

Final Results

- The business architecture blueprints helped define the most effective strategy to achieve the value proposition
- The business architecture blueprints provided the required information and rationale to build the business plan for submission to donor organizations
- The business architecture blueprints reduced the donor organizations' concerns around investing in the project by providing detailed documentary evidence of the thought process that we followed in support of the business plan
- When the required funding is received, the business architecture blueprints will be used as input to the creation of roadmaps for the business startup implementation plan
- We expect that there will be an increased ROI due to the business architecture mapping process expediting the startup maturity life cycle

What Worked

- The business model and business architecture framework confirmed the viability of the venture
- The business model and business architecture blueprints could be used as key inputs into the business plan, providing detailed evidence to increase donor confidence
- The business and operating models were key input documents into the creation and validation of the overall business strategy
- Mapping the capability and value stream maps concurrently assisted with the build out of both artifacts
- The process of building the business model, and then building the business architecture, resulted in the team having to reassess the business model, the value proposition, and, ultimately, the overall vision for the organization

What Didn't Work

- The strategy mapping took too much time due to not being able to identify the most suitable strategy framework and how the objectives cross-mapped into the other business architecture maps
- Additional research was required to map the operating model and understand how it cross-mapped into the other business architecture artifacts
- We still have questions on how to effectively apply an operating model in a small, nonprofit organization
- The operating model was not mapped at the beginning of the process, resulting in many unnecessary changes to other business architecture maps

Lessons Learned

- The business architecture artifacts are excellent components for inclusion in the business plan
- The challenge for most nonprofit organizations is the need to have multiple client categories where your key client is not paying for the product or service you are delivering and a third party is sponsoring the end-user/customer (see figure 28)

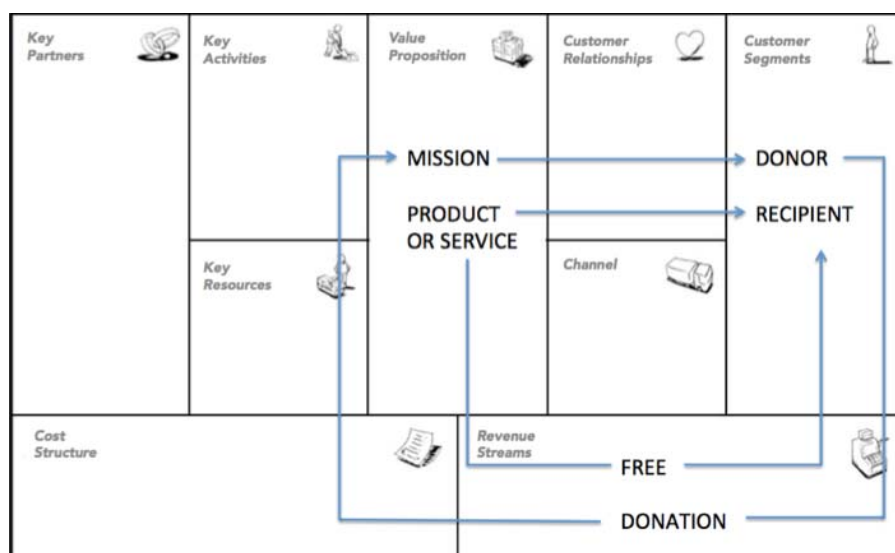


Figure 28: Nonprofit Business Model

- There are two additional clients in this business model: the animal owned by the customer and a volunteer (providing resources and fee income), both of which require their own value proposition
- Operating in under-developed countries adds additional complexities to the business model (e.g., infrastructure availability, poor medical services, government governance restrictions, and safety and security)
- In under-developed countries, additional social issues are introduced into the business lifecycle (e.g., poverty, a skewed view of first-world support, etc.)
- A part of the process is fulfilled by staff who are volunteers. There are positives and negatives to this approach. Volunteers are expecting a service in return for their contribution. They introduce different employee management approaches. Volunteer onboarding is required for each trip, which increases costs and reduces efficiency. However, they do provide an additional revenue stream.
- A key outcome from the development of the value proposition canvas was that we were forced to question our motives, approach, and our overall purpose in terms of what we wanted to achieve as a nonprofit organization. Questions we asked included:
 - Do we mainly want to help animals in under-developed countries?
 - Do we mainly want to leverage the nonprofit sector to help ourselves prosper?

- Donors to nonprofit organizations typically request maximum investment of their funds into the sponsoring item. The challenge of justifying the administrative costs to deliver the service to the customer always exists.

Appendix

Appendix A: Contributors

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Appendix B: Sources

Alexander Osterwalder and Yves Pigneur, *Business Model Generation*

Alexander Osterwalder, Yves Pigneur, Greg Bernarda, and Alan Smith, *Value Proposition Design*

Jeanne W. Ross, Peter Weill, and David C. Robertson, *Enterprise Architecture as Strategy*

William Ulrich and Neal McWhorter, *Business architecture – The Art and Practice of Business Transformation*

Business Architecture Guild®, *BIZBOK® Guide* Version 4.6

Benchmark Consulting, *IRIS Software and Guide*

Project Management Institute (PMI), *Project Management Body of Knowledge (PMBOK)*, 5th Edition, 2013

AXELOS, *Prince2*

¹ Indicators of Poverty & Hunger. United Nations. 27 May 2011.

² World Organisation for Animal Health, Terrestrial Animal Health Code (2016):
<http://www.oie.int/index.php?id=169&L=0&htmfile=glossaire.htm>