

PRODUCT SELECTION FOR A STARTUP ANIMAL HEALTH COMPANY

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ABSTRACT

Most corporations seem geared to buy assets, not sell them. Estimates suggest corporations acquire three businesses for every one they divest (Mankins 2008). A corporation with a disciplined approach to divestiture seems more likely to sharpen strategic focus and deliver value to shareholders. This thesis defines and explores the concept of an orphan product as an opportunity for divestiture from a parent company and subsequent acquisition for a startup company.

Orphan product is defined by reviewing literature and selecting the following criteria for a given product; the product has a lack of marketing support/focus, the product is not considered core to the parent company, product sales trend over a 5-year time frame is decreasing, cash flows are uncertain, market growth for the category the product competes in is smaller than the industry average, the product life cycle position is mature, and portfolio synergy is low due to the parent company having other products that deliver similar benefits. A scorecard is developed and used to score orphan characteristics of four products in the animal health industry. Two of the four products analyzed are classified as orphan products and therefore potential candidates for purchase by the startup company.

A Strategy Canvas is developed and value curves are assigned per product to show how the startup company can market an acquired product relative to the critical success factors in the animal health industry (Kim and Mauborgne, 2005). A framework of critical questions is posed to each product resulting in recommendations for the startup on critical success factors to eliminate, reduce, raise, or create. For the orphan products, a recommendations include: raise price, increase marketing support, and/or create new

factors to differentiate such as to offer additional services or to develop pricing models that are simple and clear. Application of this research can be applied to companies seeking to acquire animal health products that would like to better understand how to improve their chances for success.

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CHAPTER I: INTRODUCTION

Most corporations seem geared to buy assets, not sell them (Mankins 2008). A corporation with a disciplined approach to divestiture seems more likely to sharpen strategic focus and deliver value to shareholders. This concept is supported by a study by Bain and Company completed in 2007 that analyzed 7,315 divestitures by 742 companies over a 20-year period. A finding in the study is that a company more focused on successful divestiture to return 80% more compared with companies not as focused in divestiture.

Divestiture in the animal health industry fits the trend Mankins postulates regarding acquisition without offsetting divestiture. Mergers and acquisitions in the animal health industry often result in companies increasing the number of products in a given portfolio. A review of industry media through the first three quarters of 2015 (Table 1.1) reports 24 mergers or acquisitions with an estimated cumulative transaction value of \$13 billion (USD). Four of the twenty-four transactions were for one product and the balance of the mergers were for entire divisions or product lines that encompass many products absorbed by the acquiring companies. Do the companies in this table have a divestiture strategy or do they plan on incorporating all new products into their existing portfolios? Is there a chance that some products in a portfolio are undervalued?

This thesis explores the concept of an orphan product, an undervalued brand for divestiture consideration from a parent company and acquisition by a startup animal health company. Orphan products are defined, in this thesis by the essential characteristics such as attention from management and marketing investment. Prestige Brands (NYSE: PBH) is an example in the consumer goods industry applying an acquisition approach of orphan products. PBH identifies products that have strong consumer followings, but might not

have had adequate marketing focus or the capital resources to develop their full value. Products that PBH markets are typically not considered core by the parent company and typically do not benefit from the focus of senior-level management or have support from sales and/or marketing. PBH provides acquired brands with support and the requisite attention, resulting in an enhanced market position, expanded distribution, and successful launches of line extensions. Can this business concept be replicated in the animal health industry? What criteria could be applied to identify and select products to consider for acquisition?

Table 1.1: Animal Health Industry Mergers and Acquisitions and Estimated Transaction Value, Q1-Q3 2015 (Source: Media Reports)

Product(s), Company or Division Divested	Divesting Firm	Acquiring Firm	Estimated Value (USD \$, millions)
tagg	Qualcomm	White	Not Reported
Abbott Animal Health	Abbott Labs	Zoetis	\$255
Big Heart Pet Products	Big Heart Pet	J.M. Smucker	\$6,000
N.F. Additives, Inc.	N.F. Additives, Inc.	Petell M. and I.	Not Reported
Veterinary Supplies	Jorgen Kruuse A/S	Henry Schein	\$77
Ridley	Ridley	Alltech	Not Reported
AHI	AHI	Patterson Co, Inc.	\$1,100
Sterling Test House	Sterling Test House	Neogen	Not Reported
VIP Petfoods (Aus)	VIP Petfoods (Aus)	Quadrant PE	\$314
Golden Acres Gen.	Golden Acres Gen.	AgReliant Genetics	Not Reported
Probus AS	Probus AS	Alltech	Not Reported
Probus Aqua AS	Probus Aqua AS	Alltech	Not Reported
Maravet	Maravet	Henry Schein	\$12
NoxiFerm Feed Supp.	Unknown	Brookside Agra	Not Reported
KL Products	KL Products	Zoetis	Not Reported
ANC An. Nut.	ANC An. Nut.	Huvepharma	Not Reported
Teva Products	Bayer	Bayer	\$145
Diagnostic Products	Scil Animal Care	Henry Schein	\$70
Autogenous Vaccines	Gallant Custom Lab.	IDT Biologika	Not Reported
Veterinary Division	ESTEVE	Ecuphar	Not Reported
MJ Biologicals	MJ Biologicals	PhiBro	Not Reported
IZO S.r.l.	IZO S.r.l.	Vaxxinova GmbH	Not Reported
Sentinel	Elanco	Virbac	\$410
Novartis Animal Health	Novartis	Elanco (Lilly)	\$5,400

1.1 Research Problem

As portfolios expand from activities such as acquisition, companies are required to either stretch investment dollars to support more products, gain more investment dollars to spread over products, or focus on only supporting a few core products (Alexander and Francis 1986). Alexander and Francis make the case that product deletion for firms is difficult, citing a major driver as the uninspiring nature of product deletion contrasted with the excitement of higher profile projects such as product launches, which often compete for a manager's time. Alexander and Francis call for companies to set up a procedure for deletion of products. This thesis builds on Alexander's thoughts that companies are reluctant to divest products from their portfolio and recognizes that there are orphan products in the animal health industry that are undervalued. The purpose of this thesis is, therefore, to answer the following key questions:

1. What are the key characteristics of orphan products?
2. How may orphan products be identified in a given portfolio of products?
3. If an animal health startup company purchases an orphan product, how could it market the product to be successful?

1.2 Research Objectives

This research is conducted from the perspective of a startup company looking to identify, purchase, and market an orphan product. The overall objective is to develop a tool that identifies orphan products and to provide a tool to guide strategic decisions the startup must make to ensure success. To address these issues, this thesis will meet the following objectives:

1. Define the characteristics of orphan products that may be applicable in any industry or company

2. Develop a tool to objectively define and identify orphan products
3. Apply the Strategy Curve/Value Canvas methodology to guide strategic decisions to the startup company with regards to marketing a newly acquired orphan product

1.3 Methods

An orphan product definition will be crafted by reviewing literature for product traits. A scorecard method is developed based on the criteria embedded in the orphan product definition to apply to products that will classify them as “orphan” or “not orphan.” The Strategy Canvas/Value Curve approach is applied products identified as orphans to provide guidance to the startup company regarding critical success factors in the animal health industry that will need to be managed (Kim and Mauborgne 2005).

1.4 Layout of the Research

This chapter made the case that there are orphan products in the animal health industry due to portfolio expansions and the lack of offsetting and active divestiture activity. Chapter 2 will provide a review of literature resulting in a definition of orphan product. The definition of orphan product will be used to create a scorecard, with guidelines for use to evaluate products. Chapter 3 will evaluate four products in the animal health industry via the developed scorecard. For products identified as orphans, their value curves will be plotted on a Strategy Canvas to demonstrate how the startup can successfully manage an orphan product after it is acquired. Chapter 4 will summarize the research and how the research can be applied.

CHAPTER II: LITERATURE REVIEW

2.1 Defining an Orphan Product

The definition of orphan product in the context of this thesis should not be confused with the orphan drug concept that is formalized through the Orphan Drug Act (ODA) administered by the Food and Drug Administration (FDA). The ODA grants special status for a drug or biological product to treat a rare disease or condition upon request of a sponsor. Orphan drug designation qualifies the developer of the drug various incentives and generally is a way to ensure medications are developed to address disease concerns that otherwise (based on the merits of profitability analysis alone) might not come to market. This thesis will introduce the concept of *orphan product* defined as the result of a literature review and interviews with product managers and is meant to classify products in the animal health industry relative to the amount of focus provided to the product by the parent company.

2.2 Orphan Product Traits

The descriptor *orphan product* does not appear consistently in literature. The firm PBH cites its strategy is to identify and acquire “under-valued products” (Prestige Brands Holdings, Inc. 2005). PBH goes on to explain how they target product to add to their portfolio “We identify brands that have strong consumer followings, but may not have had adequate marketing focus....in many cases, these brands were considered non-core....and did not benefit from the focus of senior level management or strong brand-marketing support” (Prestige Brands Holdings, Inc. 2005, 2). This description initiates the definition of an orphan brand, by revealing the following traits for consideration (i) not adequate focus and support from marketing and senior management and (ii) product not considered core to the company. Traits like the ones listed by PBH as guidelines to follow when

looking for brands to purchase do not seem revealed in literature. Due to the lack of guidelines suggesting what traits an acquiring company should pursue, a literature review is completed looking for information on product divestiture strategy. It should be noted that most literature refers to A summary of this information is presented in Table 2.1.

Table 2.1 Divestiture recommendations in literature

Brand or Product Divestiture Guidance	Source
Marketing support and focus is low	PBH Annual Report
Divest if product sales over time are declining	Shell Directional Policy Matrix (DPM)
Divest if cash flow is uncertain	DPM
Divest if market growth is low	DPM
Divest if the product is in a low growth market segment	DPM
Divest if the product life cycle position is mature	Product Performance Matrix
Divest if there is redundancy in the portfolio	Dranikoff
Divest when products enter the sales decline stage	Cox
Divest when products do not meet internal NPV, IRR, or ROI benchmarks	Evans, Matheson, et al.
Divest when products have low growth rate and relatively low market share	Boston Consulting Group BCG Matrix (Bruce Henderson)
Divest when there are product overlaps regarding functionality	Vu et al.

This literature review has resulted in multiple traits to consider for defining an orphan product. Many of the traits found in this literature are consistent with previous, extensive literature reviews on brand, and product, divestiture (Dung 2012). As a result of the review, the following is proposed as an orphan product definition:

An orphan product is one that, has low marketing support/focus, is declining in sales, has uncertain cash flow, is competing in a market with low growth, is

competing in segment with low growth, is mature in its product life cycle, is redundant in a portfolio, does not meet company financial standards, and has low market share.

2.3 The Strategy Canvas and Value Curve

The strategy canvas and value curve are concepts introduced to serve as a diagnostic and action framework for building strategy (Kim and Mauborgne 2005). The strategy canvas communicates where competitors for a given product are currently investing. What factors are competitors competing on with regards to service, delivery, product features, marketing, etc? The strategy canvas captures these characteristics on a two dimensional graph, with the competitive factors serving as the horizontal axis. For this thesis, factors are developed based on the specific products being analyzed, and include items such as marketing focus, the safety profile of the product, and technical services support, to name a few.

The vertical axis of the strategy canvas is an indication of the offering level that the buyer of a product being analyzed would receive across all the competitive factors listed. When analyzing a specific product, the value curve for the product is created by considering how much value (what offering level) a customer is receiving relative to the competitive factor on the horizontal axis. This mapping of a product's features provides a graphic depiction of a company's performance relative to forces of competition in the industry.

2.4 The Four Actions Framework and ERIC Grid

The Four Actions Framework is a series of questions that have been developed to understand trade-offs made regarding investments in competitive factors for a given product (Kim and Mauborgne 2005). The questions posed in the Four Actions Framework

are asked relative to the factors of competition that are listed on the strategy canvas. The questions are: (i) what factors of the industry that my product competes on should be eliminated? (ii) which factors should be reduced below the industry standard?, (iii) which factors should be increased, or raised above the industry standard?, and (iv) which factors should be created that the industry does not offer?

The ERRC Grid is a supplemental analytic tool to the Four Actions Framework that is intended to provide direction on what actions can be taken to differentiate a product by creating new forms of value to offer to customers (Kim and Mauborgne 2005). The ERRC grid is adjusted very slightly for this thesis, and is referred to as an “ERIC” grid – replacing the “Raise” component of ERRC with an “I” for “Increase.”

CHAPTER III: METHODS

3.1 Orphan product scorecard

Applying the orphan product definition to actual products in the industry to identify if they are orphans, or not – a score card is developed (Table 3.1).

Table 3.1 Orphan Product Scorecard

Orphan Product Criteria	0 score	1 score
Marketing support and focus is low	Some marketing support	No marketing support
Product sales over time are declining	5-year sales trend is flat or increasing	5-year sales trend is declining
Cash flow is uncertain	Consistently positive cash flow	Periods of cash flow rotating between positive and negative
Market growth is low	Market growth higher than GDP growth	Marketing growth lower than GDP growth
Market segment growth is low	Market segment growing faster than the industry average	Market growth growing lower than the industry average
Product life cycle position is mature	Product is increasing sales at an increasing rate	Product is increasing sales at a decreasing rate
Product is redundant in a portfolio	Unique product offering	Redundant offering in a portfolio
Product does not meet company NPV, IRR, or ROI standards	Does not meet companies stated benchmark	Does meet companies stated benchmark
Product has low growth rate and low market share	Product is growing faster than growth for the segment it competes in and market share is equal or greater than competitors	Product growth lower than the growth for the segment it competes in and market share is lower than key competitors

The score card includes traits that were found in the literature review and provides guidelines for the start up to apply, to rank the product being analyzed relative to the trait being considered. Of the ten traits found in the literature review, there are several that are very similar, and therefore consolidated on the score card. For example, Vu cites that a

product should be considered for divestiture if it overlaps functionality with another product in a company's portfolio. Similarly, Dranikoff suggests divestiture if a product is deemed redundant in a portfolio from a similar, functionality standpoint. Due to these traits being so similar, they are blended together into one criteria on the score card, "Portfolio Redundancy". Additional trait consolidations made for the scorecard are: (i) combining the DPM criteria "Divest if product sales over time are declining" with the criteria from Cox "Divest when products enter the sales decline stage", and (ii) combining Vu's "Divest when there are product overlaps regarding functionality" with Dranikoff's "Divest if there is redundancy in the portfolio." Guidelines for awarding a product score of zero or one are provided in Table 3.1.

Four products are selected to be scored for their orphan product score. Two of the products (Vaccine A, and Injectable Antibiotic A) are scored in conjunction with an interview with a Product Manager affiliated with the products. The identity of the manager, products, and parent company are kept confidential. The remaining two products analyzed are Deccox[®], a medicated feed additive manufactured by Zoetis, and ReaShure[®] an encapsulated protein product fed to dairy cattle, manufactured by Balchem. These products because they were owned by publicly traded companies with annual reports that can provide evidence to support assertions made during the orphan product scoring process.

3.2 Orphan Product Scoring: Vaccine A

Vaccine A is a product used in the bovine industry to help prevention of disease. The product was launched in the mid-90s and is one product in a portfolio of four other products that help address a similar disease as this Vaccine. The scoring for Vaccine A was conducted with a product manager who formerly managed the product. The vaccine scored a 5 with score details shown in Table 3.2.

Table 3.2 Orphan Product Scorecard Vaccine A

Orphan Product Criteria	0 score	1 score	Vaccine A Score
Marketing support and focus is low	Some marketing support	No marketing support	1
Product sales over time are declining	5-year sales trend is flat or increasing	5-year sales trend is declining	1
Cash flow is uncertain	Consistently positive cash flow	Periods of cash flow rotating between positive and negative	0
Market growth is low	Market growth higher than GDP growth	Market growth lower than GDP growth	0
Market segment growth is low	Market segment growing faster than the industry average	Market growth growing lower than the industry average	0
Product life cycle position is mature	Product is increasing sales at an increasing rate	Product is increasing sales at a decreasing rate	1
Product is redundant in a portfolio	Unique product offering	Redundant offering in a portfolio	1
Product does not meet company NPV, IRR, or ROI standards	Does not meet companies started benchmark	Does meet companies stated benchmark	0
Product has low growth rate and low market share	Product is growing faster than growth for the segment it competes in and market share is equal or greater than competitors	Product growth lower than the growth for the segment it competes in and market share is lower than key competitors	1
Total Score			5

The vaccine brand scored is one brand in a family of ten, therefore the Product Manager reports this brand does not get marketing support and is scored a one. Product sales over time are decreasing and are scored a zero. Cash flow is reported by the product manager as consistent and is scored a zero. Market growth for the segment the vaccine

competes in is reported at 5 percent. GDP growth is assumed to be 1.5 percent (Real GDP Growth reported on the U.S. Bureau of Economics website 11/18/2015) and therefore Vaccine A is scored a zero. The segment that the vaccine competes in is growing at 5 percent and the animal health industry is assumed to be growing at 4 percent, hence a 0 score. The sales for Vaccine A are reported to be increasing at a decreasing rate, resulting in a 1 score on the product maturity criteria. Vaccine A is one of many products in a portfolio that address a similar disease pathogen, hence a 1 score is given for portfolio redundancy. The product manager reports that the vaccine meets the ROI benchmark that the parent company uses to analyze performance and is therefore scored a 0. The product is reported as growing at a rate slower than the market segment it competes in, and is reported as losing market share, hence a 1 score on the appropriate criteria.

3.3 Orphan Product Scoring: Deccox®

The scoring for Deccox was conducted based on analysis of available information accessible via the public domain. Deccox is a medicated feed additive fed to poultry and cattle producers to prevent an enteric disease called coccidiosis. For this analysis, Deccox was considered for its usage in the cattle industry. Deccox scored a 6 and the details of the score are reported in Table 3.3.

Table 3.3 Orphan Product Scorecard Deccox

Orphan Product Criteria	0 score	1 score	Deccox Score
Marketing support and focus is low	Some marketing support	No marketing support	1
Product sales over time are declining	5-year sales trend is flat or increasing	5-year sales trend is declining	0
Cash flow is uncertain	Consistently positive cash flow	Periods of cash flow rotating between positive and negative	0

Market growth is low	Market growth higher than GDP growth	Market growth lower than GDP growth	0
Market segment growth is low	Market segment growing faster than the industry average	Market growth growing lower than the industry average	1
Product life cycle position is mature	Product is increasing sales at an increasing rate	Product is increasing sales at a decreasing rate	1
Product is redundant in a portfolio	Unique product offering	Redundant offering in a portfolio	1
Product does not meet company NPV, IRR, or ROI standards	Does not meet companies started benchmark	Does meet companies stated benchmark	0
Product has low growth rate and low market share	Product is growing faster than growth for the segment it competes in and market share is equal or greater than competitors	Product growth lower than the growth for the segment it competes in and market share is lower than key competitors	0
Total Score			4

Marketing support and focus was given a 1 score based on a search of two websites (www.agweb.com and www.cattlenetwork.com) and three key print publications (Hoard's Dairyman, Calf News, and Drover's) reviewed little to no specific advertisements or public relations on Deccox in the previous 12 month period. Product sales over time are assumed to be increasing. While do data is publicly available to support this trend, the global forecast for an increase in anticoccidial drugs to increase is assumed to translate to increased sales for Deccox (Research and Markets 2014). Cash flow certainty is scored a 0 based on an assumption that medicated feed additives have steady and consistent production costs and pricing discipline. Market growth for the anticoccidial market is scored a 0 based on reports of 3.4 percent growth for anticoccidial medications, which is

higher than reported GDP growth (Research and Markets 2014). As previously cited, the anticoccidial market is experiencing 3.4 percent growth which is less than the 4 percent growth assumed for the animal health industry, resulting in a 1 score for this criteria (Research and Markets 2014). Product lifecycle position is scored as a 1 since Deccox was launched in the mid-1990s for cattle and is determined to be past introduction and rapid growth phase. Product redundancy is scored as a 1, since Zoetis has another product in its portfolio that has an indication for use for coccidiosis control (Bovatec[®], lasalocid). Deccox is assumed to be meeting company NPV, IRR, or ROI standards and scored a 0. Deccox is scored a 0 on low market growth rate and low market share, despite the previously reported anticoccidial market growth being lower than animal health industry growth. Without being able to know for certain via publicly available information the status of Deccox market share a 0 score is provided.

3.4 Orphan Product Scoring: Injectable Antibiotic A

The scoring for Injectable Antibiotic A was conducted with a Product Manager formerly affiliated with the company that manages the product. The product and company are kept confidential. The antibiotic scored a 1 and details are provided in Table 3.4.

Table 3.4 Orphan Product Scorecard Injectable Antibiotic A

Orphan Product Criteria	0 score	1 score	Injectable Antibiotic A Score
Marketing support and focus is low	Some marketing support	No marketing support	0
Product sales over time are declining	5-year sales trend is flat or increasing	5-year sales trend is declining	0
Cash flow is uncertain	Consistently positive cash flow	Periods of cash flow rotating between positive and negative	0
Market growth is low	Market growth higher than GDP growth	Market growth lower than GDP growth	0

Market segment growth is low	Market segment growing faster than the industry average	Market growth growing lower than the industry average	0
Product life cycle position is mature	Product is increasing sales at an increasing rate	Product is increasing sales at a decreasing rate	1
Product is redundant in a portfolio	Unique product offering	Redundant offering in a portfolio	0
Product does not meet company NPV, IRR, or ROI standards	Does not meet companies started benchmark	Does meet companies stated benchmark	0
Product has low growth rate and low market share	Product is growing faster than growth for the segment it competes in and market share is equal or greater than competitors	Product growth lower than the growth for the segment it competes in and market share is lower than key competitors	0
Total Score			1

Marketing support and focus is high based on a search for product advertisements on the same websites and print media analyzed previously Deccox. Product sales are increasing above the rate of the market and therefore are scored at a zero. Cash flows are reported as consistent, translating to a 0 score. The product manager reports the growth for this segment and product are both above the GDP, industry, and segment growth rates, resulting in 0 scores for those criteria. The product is in the late growth phase of its launch and therefore is scored as a 1 and was confirmed by the product manager as having increasing revenue growth at a decreasing rate. Product redundancy is scored a 0 since the product is unique to the portfolio the parent company offers. The product is reported to meet all company NPV, IRR, and/or ROI type metrics. The product growth rate and market share are both equal and greater than competitors and therefore scored a 0.

3.5 Orphan Product Scoring: Reashure® Choline

The scoring for Reashure Choline was conducted based on publicly available information. Reashure scored a 3 and details of the score are reported in Table 3.5.

Table 3.5: Orphan Product Scorecard: Reashure Choline

Orphan Product Criteria	0 score	1 score	Reashure Score
Marketing support and focus is low	Some marketing support	No marketing support	0
Product sales over time are declining	5-year sales trend is flat or increasing	5-year sales trend is declining	0
Cash flow is uncertain	Consistently positive cash flow	Periods of cash flow rotating between positive and negative	0
Market growth is low	Market growth higher than GDP growth	Market growth lower than GDP growth	0
Market segment growth is low	Market segment growing faster than the industry average	Market growth growing lower than the industry average	0
Product life cycle position is mature	Product is increasing sales at an increasing rate	Product is increasing sales at a decreasing rate	1
Product is redundant in a portfolio	Unique product offering	Redundant offering in a portfolio	0
Product does not meet company NPV, IRR, or ROI standards	Does not meet companies stated benchmark	Does meet companies stated benchmark	1
Product has low growth rate and low market share	Product is growing faster than growth for the segment it competes in and market share is equal or greater than competitors	Product growth lower than the growth for the segment it competes in and market share is lower than key competitors	0
Total Score			3

Marketing support is scored a 1 based on analysis of the same web and print media used the other products analyzed that resulted in recent marketing information for Reashure Choline appearing in the previous 12-month period. Product sales over time declining is scored a 0 because due to information in the Annual Report that cites growth for the Reashure product. Cash flow is scored a as a 0 since the cash flow statement on the Balchem Annual Report shows consistently positive cash flow, therefore it is assumed that the actual product would be managed in a consistent manner. Market growth for the animal health space is higher than Real GDP so this criteria is scored 1. The market segment growth this product competes in (dairy nutritional products, cited as “ruminant specialties” in the Annual Report) is cited as growing 6.6 percent. The product life cycle position is scored as a 1 since the product was launched in the early 2000s and sales are alluded to in the annual report as increasing at a decreasing rate. The product is scored a 0 for portfolio redundancy since it is a unique offering. Without having any information that can clearly comment on NPV, IRR, or ROI status of the product, a 1 score is given. The product has a 6.6 percent growth rate and market share is assumed to be increased due to commentary on the Animal Health division in the Annual Report, resulting in a 1 score for that specific criteria.

3.6 Vaccine A and Deccox Identified as Orphan Products

The orphan product scores for the four products analyzed are reported in Table 3.6

Table 3.6 Orphan Product Scoring for Selected Products

Product	Orphan Product Score
Vaccine A	5
Deccox	4

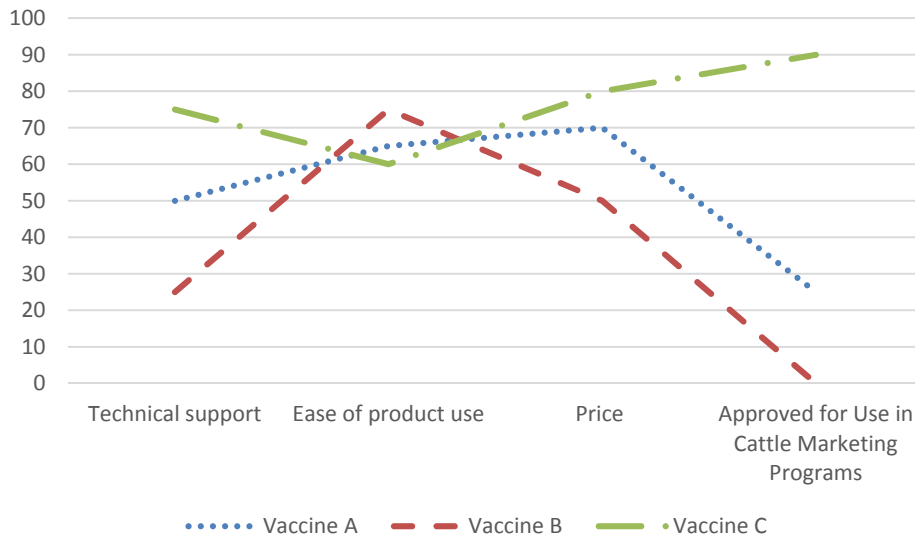
Injectable A	1
Reashure Choline	3

The scores for the four products analyzed show Deccox and Vaccine A performing more orphan-like than Injectable A and Reashure Choline. For this reason (because it is the most orphan like amongst the products analyzed) Vaccine A will be analyzed via the Strategy Canvas, Value Curve, Four Actions Framework, and ERIC Model process to determine what actions the startup could employ to make these products less orphan like and therefore more successful if the startup were to acquire them.

3.7 Strategy Canvas, Value Curve, Four Actions Framework and ERIC Grid for Vaccine A

For Vaccine A, the competitive forces companies in this segment are investing in where selected based on the product manager interview. The competitive vaccines that are compared to Vaccine A are kept confidential and labeled Vaccine B and Vaccine C. The competitive factors identified via the product manager interview are: technical support, ease of product use, price, and approval for use in cattle marketing programs (such as Select VAC[®] or the VAC-45 programs that provide premiums to cattle producers that use a select type of animal health protocols that include vaccines such as Vaccine A). These critical success factors are on the horizontal axis of the strategy canvas presented in Figure 3.1 On the vertical axis is the benefit that customers receive from the product relative to the appropriate critical success/competitive factor. For example, a high score on Marketing Support for Vaccine C means that the parent company that sells Vaccine C invests in marketing more than Vaccine A, or Vaccine B.

Figure 3.1 Strategy Canvas and Value Curve for Vaccine A



3.8 Application of the Four Actions Framework Resulting in an ERIC Grid and New Strategy Canvas and Value Curve for Vaccine A

Once the Strategy Canvas and Value Curve for Vaccine A is completed, the Four Actions Framework questions are applied to help the startup think about ways to differentiate Vaccine A from the competition in terms of delivering new forms of customer value and also to understand what competitive factors could be optimized by reducing, increasing, or eliminating investment (The Four Actions Framework questions are: (i) which factors should be eliminated? (ii) which factors should be reduced? (iii) which factors should be raised above the industry standard? And (iv) which factors should be created that the industry has not offered?).

Answers to the four action framework questions are presented in the ERIC Grid (Figure 3.2).

Figure 3.2 The ERIC Grid for Vaccine A

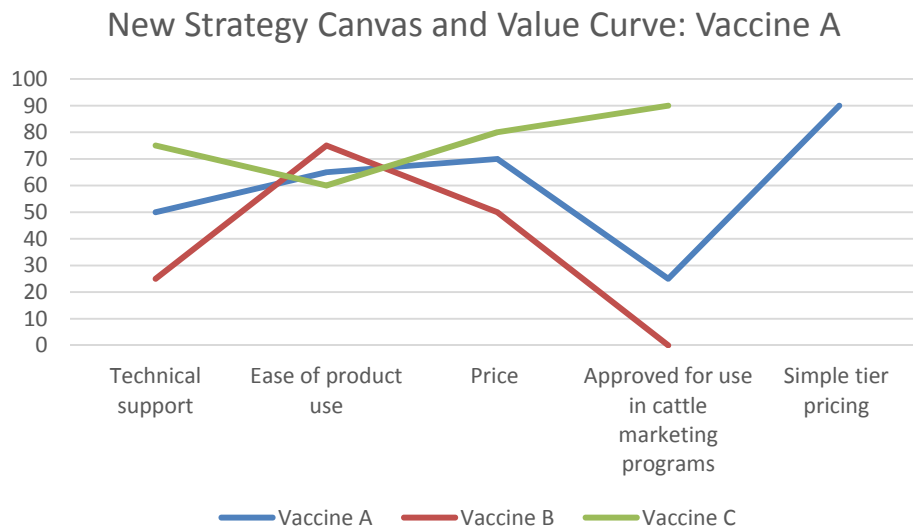
ELIMINATE	INCREASE Price Approvals for use in cattle marketing programs
REDUCE Technical Support	CREATE Simple and disciplined tier pricing

The recommendations in Figure 3.2 for Vaccine A are to increase the price and marketing support for the product, to reduce technical support, and to create a simple and disciplined tier pricing system. The recommendation to increase price is based on the knowledge that Vaccine C is providing customers value at a higher price with a product that does not have as high value on the ease of use competitive factor. The reduction of technical support recommendation is made based on an insight gleaned from the product manager interview that indicated Vaccine A is not approved for use in preconditioning programs such as Select VAC and VAC-45. These preconditioning programs have approved animal health protocols (that include specific vaccine recommendations) and Vaccine A is not always considered by customers. Increasing the awareness or approvals of Vaccine A as an option for cattle producers participating in these type of marketing programs could provide more value to customers.

A value creation opportunity that is recommended is a simple and disciplined tier pricing system. This idea came from the interview with the product manager that indicated a constant source of frustration for customers that purchases vaccines is that the true price paid for a product is often blurred by an array of confusing rebate, charge-back, and other

programs offered by parent companies. A simple, two tiered pricing program – built on the tenet of larger volume purchases would receive a better price than smaller volume purchases, at levels that could be determined, is a factor customers would value. Taking into consideration the ERIC grid recommendations, a new value curve for Vaccine A is constructed (Figure 3.3).

Figure 3.3 The New Strategy Canvas and Value Curve for Vaccine A



3.9 A New Scorecard for Vaccine A

A new scorecard is developed for Vaccine A taking into consideration the recommendations made as a result of applying the Four Actions Framework, and ERIC Grid recommendations. The scorecard is shown in Table 3.4. The impact of recommendations to manage Vaccine A in a manner to deliver more customer value results in the product being less orphan like. By having more marketing support (by way of the startup deciding to increase the approvals for Vaccine A in cattle marketing programs) and by Vaccine A not being redundant in a portfolio (since the startup would own the product and not the parent company) Vaccine A decreases its orphan product score. The creation of

a new competitive factor (simple tier pricing) could also translate to product sales increasing (this is assumed to be the case in Table 3.4).

Table 3.7 Orphan Product Score for Vaccine A Post Recommendation Implementation

Orphan Product Criteria	0 score	1 score	Vaccine A Initial Score	Vaccine A New Score
Marketing support and focus is low	Some marketing support	No marketing support	1	0
Product sales over time are declining	5-year sales trend is flat or increasing	5-year sales trend is declining	1	0
Cash flow is uncertain	Consistently positive cash flow	Periods of cash flow rotating between positive and negative	0	0
Market growth is low	Market growth higher than GDP growth	Market growth lower than GDP growth	0	0
Market segment growth is low	Market segment growing faster than the industry average	Market growth growing lower than the industry average	0	0
Product life cycle position is mature	Product is increasing sales at an increasing rate	Product is increasing sales at a decreasing rate	1	1
Product is redundant in a portfolio	Unique product offering	Redundant offering in a portfolio	1	0
Product does not meet company NPV, IRR, or ROI standards	Does not meet companies started benchmark	Does meet companies stated benchmark	0	0
Product has low growth rate and low market share	Product is growing faster than growth for the segment it competes in and market share is	Product growth lower than the growth for the segment it competes in and market share is	1	1

	equal or greater than competitors	lower than key competitors		
Total Score			5	2

The impact of the recommendations on the orphan product status of Vaccine A is a reduction of orphan product score by 3 points. The way that the startup could reduce the orphan product score is by eliminating, reducing, increasing, or creating competitive factors as they relate to value delivered to a customer. The tradeoffs that were made, and the subsequent impact of these tradeoffs on the orphan product score is show in Figure 3.4. This matrix could be used in future orphan product acquisition scenarios to understand how a specific recommended action could impact orphan scoring. For Vaccine A, the recommendations only impacted a few factors, but were able to generate a less orphan like performance from the product, as evidenced by the score change.

Figure 3.4 Impact of Recommendations on Competitive Factors

Orphan Product Criteria	Impact of Increased Price	Impact of Decreased Technical Service	Impact of Increased Marketing Programs	Impact of New Price System
Marketing support and focus is low			+	
Product sales over time are declining	+	-	+	+
Cash flow is uncertain	+			
Market growth is low				
Market segment growth is low				
Product life cycle position is mature				

Product is redundant in a portfolio				
Product does not meet company NPV, IRR, or ROI standards				
Product has low growth rate and low market share				

CHAPTER IV: CONCLUSION

The idea that companies often lack divestiture strategies serves as a basis for the concept of an orphan product. This thesis has defined an orphan product as a product that has low marketing support/focus, is declining in sales, has uncertain cash flow, is competing in a market with low growth, is competing in segment with low growth, is mature in its product life cycle, is redundant in a portfolio, does not meet company financial standards, and has low market share. A startup company in the animal health space is looking for methods to identify orphan products for potential acquisition, and for recommendations on how to ensure success selling an acquired product. The definition of orphan product is applied to a scorecard system that can be used, in conjunction with primary and secondary market research, to score products based on their orphan like behaviors. In this thesis, four products were scored for their orphan characteristics. While no one product scored on each orphan criteria, there was a separation amongst products that had higher orphan scores (Vaccine A, and Deccox) and products that had lower orphan scores (Injectable A, and Reashure Choline).

The Four Actions Framework, Strategy Canvas and Value Curve, and ERIC Grid methods were applied to Vaccine A, as a means to guide the strategic decisions a startup company would need to make to differentiate this product if it is acquired. The differentiation opportunities are based on investments the startup could make relative to factors that Vaccine A competes on with other products. Factors that were used to compare Vaccine A to its competitors were technical support, price, ease of use, and the ability for a given vaccine to compete in a value added cattle marketing program. In addition to recommendations made on existing factors, a new competitive factor was introduced that could provide value to customers and differentiate Vaccine A from its competitors. The

new factor is a simple price system that customers do not feel they have with current vaccines that compete in this space.

The result of applying the recommendations that resulted from the analysis is a new orphan product score card for Vaccine A that shows a decrease in scoring relative to orphan product characteristics. The specific ways that the recommendations impacted the orphan product scoring criteria was presented as a means to show the impact investments recommended to the startup had on the orphan product score. For example, simply the purchase of the orphan product (Vaccine A) from a parent company would reduce a the “redundant in portfolio” score since Vaccine A, as owned by a startup, would not be in a portfolio anymore. Additionally, the recommendation to pursue approval for Vaccine A in a wider variety of cattle marketing programs would have an impact on reducing the “marketing support” orphan product criteria.

This research makes the case for orphan products as undervalued products that could be acquired, analyzed, invested in, and marketed in ways that improve customer value relative to existing factors, or new factors that could be created by a startup by way of Blue Ocean style analysis. Further research could be conducted across a wider selection of products to gather more data on orphan product rankings. Additionally, research on the impact of investments as the result of Blue Ocean style analysis on orphan product scores could be pursued to provide more empirical support for concepts presented.

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