e-Journal of Business Education & Scholarship of Teaching
Vol. 11, No. 2, 2017, pp: 95-101.
"http://www.ejbest.org"

Challenges in introducing new products: A case study on the new product development process

Robert Rankin
College of Business
Texas A & M University – Commerce
Email: robert.rankin@tamuc.edu

Alma Mintu-Wimsatt*
College of Business
Texas A & M University – Commerce
Email: alma.wimsatt@tamuc.edu
Tel. No. (903) 886-5695
Fax No. (903) 886-5693
**Author for correspondence.*

Abstract

The case is based on an actual product introduction, and is designed to provide instruction on the new product development process. With the cost to launch new products estimated at least US$15 million and new product failure rates ranging from 40% to 80%, it is imperative that students learn how to determine the financial and market feasibility of a new product and understand the steps in the new product development process. This case is based on an award winning "real world" convenience frozen food product that continues to be marketed and sold twenty years after its introduction. This case is based on an actual company and events. Names have been disguised to protect the privacy of the company and its management.

Keywords: *New product development; marketing education; innovative products; market feasibility; cross functional team*

JEL Classification: E23
PsycINFO Classification: 3530
FoR Code: 1302; 1503
ERA Journal ID#: 35696

Introduction

Business instructors strive to utilize teaching tools that expose students to as well as simulate the realities of the work environment and/organization. Case studies are often used in business courses because these stories are complex, yet realistic and engaging (Christensen, 1981). According to Barkley, Cross and Major (2005), case studies "bridge the gap between theory and practice and between the academy and the workplace" (p. 182). In using the case study method, students are required to evaluate the situation, identify the problem(s), conduct relevant research, discuss various course(s) of action and decide on a feasible solution. Through the case study method, students simulate the role of managers and/or decision makers facing critical business issues.

This paper introduces a business case to help students understand the challenges in introducing a new product. In using the case study method, the instructor can discuss how the different functional areas of business can impact the decision to introduce [or not introduce] a new product. The instructor can also engage students by discussing the different steps in the new product development process as well as anticipate potential strategic problems.

To accomplish the above objectives, the next section provides a literature review on the importance of new products as well as the new product development process followed by case learning objectives and student audience. Background case information on Parson Foods Vegetable Company is presented including case questions for class discussion, and teaching notes.

Literature Review: New Product Development

One of the paths to sustained growth and profitability has been through the development and introduction of innovative new products. The strategic importance of new products to an organization is evident in metrics developed by companies such as 3M. For example, 3M uses the New Product Vitality Index to measure the sales percentage of new products introduced in the previous five years (Forbes, 2016).

The cost to bring new products to market is constantly increasing. Cecere (2013) estimated the cost to launch a new product for the period 1997-2010 was US$15 million. Companies launch new products to cater to consumers' appetite for something unique, different or innovative. According to the results of the Nielsen Global New Product Innovation Survey, 6-in-10 of its thirty thousand respondents preferred new product offerings. Fifty seven percent claimed to have bought a new product during their last grocery shopping trip (Nielsen, 2015). And yet, regardless of the seemingly skewed consumer preference for new products, numerous empirical studies have reported that new product failure rates hover around forty percent (Castellion & Markham, 2013). And more alarming, some researchers have even reported new product failure rates as high as eighty percent (Perreault, Cannon & McCarthy, 2014). Despite companies' research and development (R&D) expenditures and consumers' preference for new products, a large percent of new products fail.

Significant research exists that investigated the reasons why new products fail. Schneider and Hall (2011) compiled a list of reasons for new product failure. Problems in new product launches are, in general, a result of lack of preparation. Schneider and Hall (2011) summarized product failure as follows: "*Companies are so focused on designing and manufacturing new products that they postpone the hard work of getting ready to market them until too late in the game*" (p.21). Additionally, Biyalogorsky, Boulding and Staelin (2006) found that new products fail because management persists on committing to a losing course of action (e.g., escalation bias). Because there is a high level of commitment for innovative projects, some managers insist on investing in failing projects (Schmidt & Calantone, 1998).

Herein lies the importance of a thorough and objective vetting process for new products. Most marketing textbooks discuss the new product development process which includes the following stages: idea generation, screening, idea evaluation, development and commercialization (Cooper, 2008; Perreault, Cannon & McCarthy, 2014). Depending on the stage, the impact of new product failure becomes more pronounced as an idea progresses further in product development (Buerger, Patzelt & Schweizer, 2009).

Case Study: Learning Objectives

This case was developed to provide students with an understanding of the:

1) Importance of innovation and new product development to a company's longevity and marketplace relevance;
2) Process involved in understanding consumers and target marketing;
3) Role of various organizational functions when introducing a new product; and,
4) Importance of coordinating the different organizational functions to ensure new product success.

Case Study: Student Audience

This case is appropriate for senior and graduate-level marketing and/or business students. At these levels, students have been sufficiently exposed to traditional marketing concepts and, therefore, should be able to effectively integrate these concepts within the context of a new product development. And, as senior or graduate students, they have presumably done coursework in all the different functional areas of business. Therefore, this case provides a good foundation for the stages involved in the new product development process for a consumer good. Most importantly, this case allows students to assume the decision maker role representing the interest of various functional groups.

Intended Courses:

1. Senior-level marketing strategy course; and/or
2. Graduate-level marketing management course.

Company Background

Parson Foods, a fluid milk processor (dairy), founded in 1925, grew through continuous acquisitions to become an industry leader. As part of Parson Foods' post-acquisition strategy, it allowed each dairy to operate autonomously with little oversight. Since dairies generally have limited geographic markets, due to the perishability of milk, the acquired dairies tended to retain control over their own territory. It was not likely an acquired dairy would compete against another of the Parson dairy within the given territory.

In the 1990's, Parson Foods employed its growth strategy to frozen and canned vegetables. In implementing their new focus on vegetables, Parson Foods acquired the Darien Company. Over the next decade, Parson Foods grew through acquisition to become the largest processor of canned and frozen vegetables in the country.

Following their dairy strategy, Parson Foods allowed acquired vegetable processors to operate autonomously while providing capital for organic growth. Unfortunately, unlike Parson's dairies, which rarely competed against one another, vegetable processors under Parson Foods umbrella distributed frozen and canned vegetables nationwide. This lack of perishability and defined geographical territories meant that the vegetable acquisitions competed against each other - often cannibalizing business from one another. As a result, the Parson Foods' consolidated vegetable operations reported significant operating losses.

Parson Foods Vegetable Company (PFVC)

With losses from vegetable company operations mounting, Parson Foods' executives decided to depart from their longstanding acquisition-autonomy strategy by establishing Parson Foods Vegetable Company (PFVC). PFVC was created to consolidate all vegetable processing operations into one company. Richard Lawson was named the first Chief Executive Officer of PFVC and charged with returning the company to profitability. Richard assembled a seasoned management team who quickly made operational and structural changes to improve PFVC's financial results. While their efforts improved financial results, Richard wanted more. In addition to organic growth, his vision was to grow PFVC through the introduction of innovative new products.

Richard's vision would be challenging to execute considering the company's recent history of new product introduction. Soup-in-a-Flash, a microwaveable soup starter kit, introduced by Eagle Eye Foods, one of the companies consolidated to form PFVC. Soup-in-a-Flash failed miserably with the company writing-off more than US$10 million of unsold finished goods.

Should PFVC Try Again?

Because the failure of Soup-in-a-Flash was still fresh, Parson Foods did not have an appetite to introduce new products. Meanwhile, PFVC's executive management team still believed in Richard's new product development vision. His team believed that new products would be instrumental in improving the PFVC's future sales and financial results.

Recently, Carlos Rico, PFVC's Marketing Manager, approached Richard with an idea for an innovative, nutritious and convenient frozen food product. The new product would consist of vegetables, coated seasoned pasta (known as spaetzels) and chicken - all contained in a single bag. To prepare the product Carlos called Chicken Sensations, consumers would simply empty the contents from the bag into a bowl, add a teaspoon of water, microwave for 6 minutes and, voila, dinner is ready! Carlos expected Chicken Sensations to compete against other convenience frozen foods such as frozen pizza and microwaveable dinners. He provided preliminary sales forecasts suggesting the introduction of Chicken Sensations would increase company sales by over twenty percent and deliver gross margins double current vegetable offerings. As far as Carlos was concerned, the potential for Chicken Sensations was phenomenal!

To further explore the feasibility of Chicken Sensations, Richard assembled a cross-functional team comprised of Gary Smits, Vice President of Production; Vicki Hoerning, Director of Financial Analysis; and, Carlos Rico. They were charged with evaluating the market feasibility of Chicken Sensations.

Richard initially described Chicken Sensations as an innovative new product with the potential to create a new category of convenience frozen offerings and significantly impact PFVC's financial results for years. He challenged the team to objectively evaluate the financial and market viability of Chicken Sensations cautioning them about the importance of the quality of their analysis. Reminding the team of the fiasco with Soup-in-a-Flash, Richard's parting words were, "Failure is not an option."

Richard requested that the team reconvene in two weeks to discuss present their findings and analysis to determine how the company should proceed. He requested the team members complete the following analysis:

- ***Carlos:*** To explore the selling prices of current convenience frozen food products; propose a selling price; determine a selling price for Chicken Sensations; recommend the mix of chicken, spaetzels and vegetables; forecast first year sales; and, quantify incremental sales (e.g. incremental sales staff, slotting) and marketing costs (e.g. coupon costs).

- ***Gary:*** To determine where to process Chicken Sensations; estimate the costs associated with preparing the processing facility; and, evaluate manufacturing costs.

- ***Vicki:*** To perform financial analyses to evaluate the expected overall first-year profitability; calculate breakeven sales level and margin of safety; and, be prepared to conduct sensitivity analysis based on inputs from Carlos and Gary.

Points to Ponder

There is a sense of urgency for PFVC to launch a new product despite the parent company's reluctance to support the effort. Richard Lawson believes Chicken Sensations will propel the company forward while also creating a new category of convenience frozen foods that will dramatically increase sales and gross profits. While he emphasized to his team that "failure is not an option," success is not guaranteed [regardless of the merits of the product] in new product introduction. The best anyone can hope for is a thorough and efficient analysis of the market and financial feasibility of a new product to increase the likelihood of success. Consequently, the team member analysis and findings will be critical in evaluating the feasibility of Chicken Sensations. This will entail a holistic cross functional approach in evaluating financial and market feasibility of Chicken Sensations while minimizing the risks. Simply stated: Did Richard request the appropriate information and analysis from the team effectively evaluate the market and financial feasibility of Chicken Sensations?

Teaching Notes

Case Synopsis

Parson Foods Vegetable Company executive management believes in a new product idea, Chicken Sensations, which has the potential to have a significant positive impact on sales and gross profits. While the introduction of new products is generally considered risky, for PFVC, this is compounded by the failure of its most recent new product introduction Soup-in-a-Flash as well as the parent company's (Parson Foods) corporate executives' unwillingness to support another new product venture.

This case provides instructors a mechanism to discuss the new product development process, market and financial feasibility, and the interaction of members of a cross functional team in decision-making. Students are encouraged to review the steps in new product development process. Role playing with students assuming various functional positions (e.g. marketing, production or finance) will provide them with a holistic perspective of the process and associated decision.

Suggested Discussion Questions and Answers

1) Richard charged the cross functional team with specific analysis to complete. What other key research materials are necessary for the team to effectively evaluate the market feasibility of Chicken Sensations?

Richard's requested analysis from the cross-functional team is driven by financial questions. This is understandable, given his desire not to fail as well as the parent company's apathy towards new products. However, the crux of any new product's success is dependent on what needs the product fulfills and finding a target match. Therefore, the stages of new product development process need to be thoroughly discussed: idea generation, screening, idea evaluation, development and commercialization.

2) What is the appeal or unique selling proposition of Chicken Sensations?

The primary selling point of Chicken Sensations rests in the convenience of preparing the meal in a few minutes (i.e., time utility). Since the ingredients include vegetables, carbohydrates (spaetzels) and protein (chicken), a well-balanced meal can be served quickly. Finally, with all ingredients available in one bag, it would not occupy much storage space.

3) Who is the potential target audience for Chicken Sensations? Describe the characteristics of the target.

Chicken Sensations will appeal to individuals who are often time-crunched in meal preparation, such as dual-income households with children. Individuals who have an active/busy lifestyle but want to make sure they have a balanced diet could also be potential targets. Chicken Sensations will also appeal to individuals who have limited frozen storage like students living in dormitories.

4) Who are the competitors and how might they respond to the introduction of Chicken Sensations?

Since Chicken Sensation is a frozen product, consumers will most likely consider other frozen-meals as competition. Some students may consider store-bought fast food products as competition as well. They might argue that instead of consumer walking to the frozen food section while at the grocery store, he/she could opt for buying food prepared in the store.

5) In addition to the competition, what other external market factors could affect the success of Chicken Sensations?

Socio-cultural factors – Will consumers be responsive to frozen meals? What is the general perception when it comes to frozen meals?
Economic factors – Is the product deemed affordable?

6) What biases might exist for the members of the team towards new product introduction?

Since idea for Chicken Sensations came from Carlos Rico, he may be biased towards introducing the new product irrespective of market and financial feasibility. Based on the Richard's requested analysis, he emphasized financial over market feasibility.
In discussing this question, it would be beneficial to have students assume various functional roles. Role playing will bring out different points of view and aspects of the decision-making process.

Postscript

This fictional case is based on Dean Foods Vegetable Company located in Green Bay, Wisconsin, United States. Soup-in-a-Flash was Microquick®, a failed new product introduced by the Larson Company, a predecessor to Dean Foods Vegetable Company. Chicken Sensations was introduced nationwide as Birdseye Voila® in 1998 by Dean Foods Vegetable Company, a wholly owned subsidiary of Dean Foods. When introduced, Birdseye Voila® received a Brammy Award for Brand Management from *Food and Beverage Marketing* in the United States. For a copy of the article announcing the Brammy, please contact Professor Robert Rankin at Robert.rankin@tamuc.edu.

Birdseye Voila® continues to be distributed nationwide in more than twenty formulations with varying combinations of protein, vegetables, and spaetzels by Pinnacle Foods. The corresponding author worked as the financial analyst on the team that introduced Birdseye Voila and provided firsthand accounts of the new product introduction process. For interested instructors, a companion teaching case focusing on the financial feasibility entitled The Chicken or Egg: Hatching a New and Innovative Introduction was published in the *Institute of Management Accounting Educational Case Journal* (2017).

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