

Ultra Light Adventure Equipment

Kent E. Neupert and Alan Frankle wrote this case for the purposes of classroom discussion. The authors do not intend to illustrate either effective or ineffective handling of a managerial situation. Certain names and other identifying information may have been disguised to protect confidentiality.

Funds were provided by The Global Business Center (Home of UW CIBER) at the University of Washington under a grant from the U.S. Department of Education.

Copyright © 2005 Kent E. Neupert and Alan Frankle

Brian Frankle leaned back in his chair and looked at the image of the Pacific Crest Trail that had just appeared on his computer screen saver. It had been several years since he had hiked the trail. The business he had started after the hike, Ultra Light Adventure Equipment (ULA), now took up most of his time. Looking past the computer monitor and the screen saver image of the outdoors, he saw several of his employees working on sewing machines producing ULA backpacks and accessories.

Leaning forward to toss his dog, Wred, a biscuit, Brian wondered about the issues facing his company over the coming year. One pressing issue was production. Should he continue to build a domestic production facility or look at outsourcing to Asia? A related issue was how to increase sales enough to make Asian production worthwhile. Another photo of the Pacific Crest Trail hike flashed on the screen saver. “Now that was a great trip,” he said, making him wonder briefly if he should just sell the business to a larger company and get back to what he enjoyed most.

The Outdoor Recreation and Backpacking Industries

The Outdoor Industry Association (OAI) publishes an annual “Outdoor Recreation Participation Study” that tracks the participation of Americans aged 16 and over in human powered outdoor activities. The study distinguished between participants and enthusiasts. Participants engaged in an activity at least one time during past year and

represent potential enthusiasts. By comparison, enthusiasts were the most frequent participants in an activity and represented the core market. Enthusiasts were defined as those participating in an activity during the past 12 months within the top 15% of frequency levels mentioned by the participant population for a given year. As a group, enthusiasts purchased higher priced and more technologically advanced gear and services.

Backpacking as an activity was defined by persons who backpacked for more than a quarter of a mile from their vehicle and stayed over night (i.e. camping). For 2004, the range of participation in backpacking ranged from one time to 42 times in the past year. While just over 60% of respondents reported backpacking three or less times a year, enthusiasts were identified as backpacking seven or more times a year (i.e., the top 15%), up from six or more times a year in 2003.

According to the OAI study, in 2004, Americans who backpack are:

- Primarily male and unmarried
- Between the ages of 16 and 34 (median age is 25 years)
- Most likely to live in the Western United States
- Staying active when not backpacking by participating in hiking, camping, bicycling and fishing.

Several changes in the backpacking population were noted over the seven years prior to the report. In particular, ethnicity, age, household affluence and region showed changes. In 2004, backpackers were twice as likely to be non-Caucasian than the group of backpacking Americans in 1998. There was a steady growth in 16 to 24 year-old backpackers since 1998; in 2004 one half of backpackers fall within this age group. For 2004, 40% of backpackers report a household income between \$40,000 and \$79,000, a significant increase in affluence of 29% compared to 2002.

In comparing results over the 1998 – 2004, the study noted several trends. From an overall perspective, backpacking participation was steady over the most recent three years, down from its strongest levels of participation in late 1990's. Comparing 2002 to 2004, the incidence of enthusiasts among Americans age 16 and older declined 47% from a record high of enthusiast activity in 2002. Also the incidence of backpacking participation in 1998 (7.8%) declined in 2004 (6.0%). However, during this same period,

the level of participation at enthusiast levels remained unchanged. From a long term perspective, the overall trend was a gradual decline in backing participation from 1998 to 2004, while enthusiast levels remained flat.

The OAI estimated that in 2004 there were 13.3 million Americans backpackers that participated in a backpacking experience less than 7 times and 1.8 million that participated 7 or more times. The six year trend is not encouraging as the overall backpacker population has decreased from 16.4 million participants in 1998 to 13.3 million in 2004. Also, the average number of outings by enthusiasts dropped from 9 or more times to 7 or more times during the same time period. The gender breakdown has remained generally consistent over the 1998-2003 time period with 71% of the backpacker population being male and 29% female. In 2004 the percentage of male participants increased to 75% of the population, while female participation decreased to 25%. There have also been small increases in ethnic diversity over the last six years. Age demographics show an increase in 16-24 year old participants and a decrease in the 45 + category. (Exhibit 1 shows backpacking participation and demographic information.)

Lightweight Backpacking. A segment of the overall market is known as lightweight backpacking, which involves using the lightest gear to meet the needs of an overnight or longer walk. Lightweight backpackers generally have a base pack weight (i.e., the weight of gear not including clothing worn, items carried food, fuel and water) of 12 to 20 pounds. Ultralight backpackers boast a base pack weight of less than 12 pounds. These low weights are in contrast to the base pack weights of 30 to 50 pounds that most American backpackers carry. Lightweight and ultralight backpackers claim the benefits of the reduced weight load approach include faster travel, less strain, ability to reach higher elevation, better stability and reduced exhaustion among others. Lightweight and ultralight backpackers carry the same safety gear and essentials that other hikers carry, such as clothing, sleeping bag, shelter, first aid kit and water treatment supplies, but in lighter weight versions. This segment will spend an average of \$1,000 to \$2,000 for a high quality kit of lightweight equipment. It is reasonable to assume that this segment includes a higher proportion of enthusiasts than does the general market.

Manufacturing Trends. The August 2005 issue of Backpacker Magazine reported on a trend in backpack manufacturing in which production is consolidating in Vietnam. According to the article, major brand backpacks were being manufactured in Vietnam as a way to achieve lower production costs and design improvements. The article profiles one factory, PK2, owned by the South Korean multinational Pungkook Corporation, which employs 5,000 employees at one location monthly producing and shipping more than 100,000 packs worth \$28 million at retail. PK2 produces for Osprey, Lowe Alpine, Marmot, L.L. Bean, Gregory, Eagle Creek, Victorinox, Dana Design, Adidas, Salomon and Arc'teryx.

According to the article, PK2 pays workers an average of \$100 a month, three times the \$35 a month minimum wage in Vietnam. The factory runs six days a week and employees work 40 hours a week, with time and a half over 40 hours, up to 60 hours maximum a week. At PK2, workers are mostly in their 20s and fairly evenly split between men and women

Reportedly, Pungkook Corporation has invested US\$500,000 in its design capabilities at PK2. With 40 pattern makers and 160 sewers, PK2 can create packs from any designs, blueprints or rough sketches sent to them from anywhere in the world. Apparently for many brands, the PK2 developers determine everything about the pack except the look and placement of the brand logo. According to the article, it allows almost anyone to create a line of backpacks by going to the PK2 factory and selecting fabric type, fabric color and basic design, much like ordering off a menu. Labeling this consolidation “the Asian funnel,” the article highlights the “double edge sword” effect in which every company having products made at PK2 gets to share in the same technology advances. However, this commonality of features results in an increasing difficulty in differentiating between brands. Industry insiders say there is a reduction in the differences between high-end and low-end packs as a result. Consumers benefit in that they can buy higher-quality packs from them than they would have ten years ago. This creates a challenge for companies to find ways to distinguish their packs in a sea of similar looking products.

History of Ultra Light Adventure Equipment

Ultra Light Adventure Equipment (ULA) was begun in May 2001 by Brian Frankle and Jason Mons in Logan, Utah. Before the company was established, Brian took a year off from his studies in Landscape Architecture to hike the Pacific Crest Trail from Mexico to Canada, which he completed in 127 days. During the organization and planning of the hike, Brian read much of the available information on both the Pacific Crest Trail and the strategies one should consider implementing during a long-distance hike to ensure success. Many of these concepts dealt with ultra-light vs. traditional backpacking. During Brian's 4 ½ month hike, many of these concepts were tested and their value (or lack thereof) quickly became clear. Combining the pre-hike material with the realities of the trail, Brian determined that there was a need for backpacking equipment that would more easily facilitate the transition from traditional backpacking techniques to ultra-light techniques. The ultra-light packs available on the market were basically big sacks with no suspension and therefore uncomfortable for someone accustomed to better support. Upon his return, he and a local backpack maker spent many hours working out a new design and suspension system that would be lightweight and comfortable. Thus ULA was born.

ULA was a success from the start. The original pack, the P-2, received the prestigious "Editor's Choice" award from Backpacker Magazine in 2003. All sales were direct via the Internet to individual consumers. Customer service and high quality were Brian's main objectives. He wanted each customer to be able to talk with someone who had a deep understanding of long-distance hiking and the advantages of doing it with lightweight equipment. Sales soon overwhelmed his small production facilities.

As such, Brian looked for someone to provide production support that emphasized the same focus on quality that he valued. Beginning in 2003, he began to work with Serratus Mountain Products, near Vancouver, British Columbia, eventually outsourcing almost half of his production to Canada. This relationship prospered and volume increased.

Serratus Mountain Products was a subsidiary of Mountain Equipment Co-op (MEC), the Canadian equivalent of REI. In late 2004 Mountain Equipment Co-op decided to move all their production to Asia and to close the doors of Serratus Mountain

Products. As of January 2005 Brian found himself without his main supplier. In Brian's opinion "Serratus Mountain Products was really the last of the 'old-school' outdoor gear companies in existence . . . quality goods, more functionality than flash, and designed by folks who had a genuine understanding of the products and their use."

With this change, Brian needed to expand his production facilities and production capabilities which he did this by buying equipment from the now defunct Serratus. However, he was not certain that this would be enough capacity to meet the growing demands for his product.

ULA Management and its Philosophy

ULA specialized in lightweight and ultralight backpacking equipment. It offered unique products that addressed the needs of transitioning traditionalists, lightweight, and ultralight thru-hikers, day hikers and any-distance backpackers. Brian continually talked with and shared ideas with other hiking enthusiasts in an effort to develop equipment that balanced traditional and lightweight approaches to backcountry travel. ULA's goal was to successfully combine the two dueling approaches while preserving the underlying qualities of each. ULA followed a simple design strategy: focus on the comfort and function of their products first, and then focus on reducing weight.

ULA's philosophy also involved a commitment to produce unique, quality goods that met or exceeded the needs of their customers. ULA products must be distinctive, original or innovative. They should not be similar to versions offered by other producers. Likewise, new product models must feature significant improvements or innovations over the previous model and not just reflect a change in the calendar year.

Brian had noticed that over the last few years there had been a major influx of lightweight and ultralight gear manufacturers to the outdoor equipment industry. He was bothered by the fact that these new companies offered little in the way of originality or innovation and were essentially selling the same wares as everyone else. Therefore, in keeping with his ULA philosophy of uniqueness and innovation, he chose not to sell titanium stakes, catenary tarps, alcohol stoves, guy line or other types of outdoor equipment on the ULA website. He thought there were plenty of other companies who did a great job with those items and felt there was no reason for him to offer a similar

"Official ULA-Equipment Version" of a given product unless he could significantly improve upon it. This reflected his commitment to quality over quantity.

ULA Products

According to Brian, ULA packs differed from other "lightweight" packs on the market in three ways: durability, function and value.

Durability: All ULA packs were built from materials that have a high level of durability for their relative weight. In addition, every seam was bound to ensure the maximum protection to the original seam. This meant long-term seam integrity. All ULA products were sewn in North America with, in Brian's words, "an attention to detail designed to remind the customer of what the outdoor industry used to be like in terms of quality." This approach enabled ULA to offer a lifetime warranty for all of their products. The durability is evident from the small number of returns shown in ULA's financial statements.

Function: The pack designs were developed from Brian's desire to create not only a lightweight pack, but also something that functions well for the user. Unlike some lightweight packs, all ULA packs were feature laden while still weighing less than most 'stripped down' traditional packs. Organization was easily achieved with up to five external pockets, and further functionality could be addressed with additional custom options. The range of compressed or expanded packable volume also allowed the packs to function well for a variety of packing situations or trip lengths.

Value: The range of use and reliability of ULA packs was well documented in the industry press and customer testimonials. According to Brian, "regardless of whether our customers are buying a pack for a thru-hike or a weekend getaway, they can rest assured that their dollars are being spent on a versatile, durable hiking companion."

ULA had several products lines, but the main contributor to revenues was the backpack line. In 2005, there were two models. The P-1 was a top loading backpack. The packs design emphasized simplicity, on-trail access and comfort. 'Cradle-style' shoulder strap anchors resulted in better load transfer. Using a dense, removable quarter-length foam frame sheet reinforced with a carbon fiber tube for greater comfort and load control provided additional shoulder support. This prevented the shoulder straps from

collapsing inward. The P-1 was compatible with most rolled/folded foam or air sleeping mattresses. The intended load for the P-1 was below 30 lbs for optimal performance.

The 2005 P-1 differed from the 2004 P-1 in that the front mesh pocket was slightly different. It still had the same volume, but the top closure had been simplified using a centered single grommet closure instead of dual shock-cord system on each side of the pocket. (See Exhibit 2 for a detailed product description and Exhibit 7 for comparison between brands.)

The P-2 was a full-suspension top loading backpack. Pack design emphasized traditional components of comfort with highly functional yet simplified accessories. The P-2 was capable of hauling loads up to 40 lbs, making the transition from traditionally heavier loads to a lighter-weight approach more attainable. The pack's full frame sheet also provided greater comfort between long re-supplies or through waterless stretches. All suspension components were removable. The P-2 received Backpacker Magazine's prestigious "Editor's Choice" award in 2003.

The 2005 P-2 differs from the 2004 model in that dual ice axe/trekking pole retention straps were standard as well as having dual shaft retention straps sewn into a seam, thus eliminating the front daisy chains. The side mesh pockets were cut slightly lower to better facilitate pocket entry. (See Exhibit 3 for a detailed product description and Exhibit 7 for comparison between brands.)

Operations

In 2005, ULA employed 2 part-time employees and up to 8 contract sewers. The contract sewers worked out of their homes and were responsible for the production of a variety of panels, accessories and sub-assembled parts which were then returned to the shop for final assembly. Brian planned to increase their respective roles, shifting from being solely responsible for the sub-assembled parts to contributing to the finish work on all ULA backpacks. Most of the contract sewers were once employed at regional sewing facilities that are now out of business. Brian felt that their strong sewing experience was critical in helping to establish ULA as a supplier of quality products.

Customer service and quality were two of ULA's most important goals, and this in-house production arrangement allowed Brian to do personal quality control of every

pack that was shipped. The average time between order date and ship date was six days. Operations were headquartered out of a 1,200 square foot shop behind Brian's home in Logan Utah. Brian modified his tag in all ULA packs to read as shown below.

Made in my garage Utah, USA

Like any entrepreneur, Brian identified closely with the business and its products and was possessive of operational control issues. This influenced his decision-making in most areas and especially affected his outlook towards growth. Brian felt that he could easily grow the business at 10% per year, and perhaps as much as 20%, for several years while maintaining production in Logan, Utah. Alternatively, he believed he could grow it more quickly if he outsourced production and concentrated on marketing and distribution to an increased number of retail outlets. However, he felt that giving up control of production could result in lower quality and lower customer satisfaction, while at the same time increasing his dependence on retailers. As ULA ramps up production the shop is operating at about fifty percent capacity. Brian has pursued some of Wildman's customers and uses excess capacity to do special order batch jobs for several customers. These jobs have good margins and the cash flow produced is used to pay down the debt incurred by buying Serratus's and Wildman's assets. (See Exhibit 4 for a photo tour of the facility.)

Marketing and Distribution

The majority of ULA sales were direct via the Internet (www.ula-equipment.com), along with a small number of select retail locations. ULA's strategy was to use stores that catered to thru-hikers. The idea was to market its product with "word of mouth" via the Internet and actual product users who are out hiking along the three major long trails in the United States; the Appalachian, the Pacific Crest and the Continental Divide Trail. As of 2005, ULA packs were distributed through stores along the Appalachian Trail. In particular, these were Mountain Crossing (Neels Gap, Georgia), Mt. Rogers Outfitters (Damascus, Virginia) and Bluff Mountain Outfitters (Hot

Springs, North Carolina). Although these stores only account for approximately ten percent of ULA's sales, the exposure to Appalachian Trail hikers has been an important marketing tool and has resulted in many new customers.

Brian attended many hiking gatherings throughout the year to talk shop, answer questions about the products, offer advice and take orders. He encouraged people to stop by his Logan, Utah facility to see the products, ask questions or just visit. Primary competition came from large outdoor equipment companies such as Go-Lite, Gregory, Granite Gear, as well as other cottage industry companies.

Financial Information

Financial information covering 2 ½ years of business (2003, 2004 and six months of 2005) is provided in Exhibits 5 and 6. Since the business had been in transition during this time period, the financial results varied from year to year. For the first ten months of 2003, ULA shared space with Wildman Products, owned by Jason Mons, Brian's partner in ULA. In November 2003, ULA moved to its current location in a 1200 square foot workshop behind Brian's residence. Also in September 2003, ULA began to use Serratus as a supplier of backpacks. This relationship lasted until Serratus was dissolved in December 2004. For the first 6 months of 2005 ULA produced all products in-house. Brian allocated \$1000 per month as rent for the shop including all utilities. In January 2005, Brian purchased all of Wildman Products' assets including equipment, inventory, patterns, customer lists and Jason Mons' share of ULA for \$18,500.

The 2005 Outdoor Recreation Show

In January of 2005, Brian attended the Outdoor Recreation (OR) Show in Salt Lake City, Utah. During the show he had interesting discussions with a good friend and fellow outdoor enthusiast, Forrest Greene. Forrest had spent several years working for Black Diamond and had recently started his own company making outdoor gear. Like Brian, Forrest was in the early stages of the business where sales were currently low but growth of demand was significant. Forrest explained that he had met with Asian producers from China, Taiwan, Vietnam and Korea and was impressed by the cost advantage they could provide. Forrest's major product that had cost him \$44 to produce

in the USA could be produced in Asia for \$12.50 per unit. However, they required 1000 units per order, Forrest's upper forecast for his next year's sales. Both Forrest and Brian agreed that many of the contract sewers in North America were closing because of the low cost alternatives in Asia. Forrest indicated to Brian that he was going to move his production to Asia and use his staff in Utah as a quality control and repair center. He felt that the cost savings on the production side would allow greater expenditures for quality issues that may arise.

Brian asked Forrest for the names of the Asian suppliers he had talked to during the OR show. Brian contacted several of the suppliers and was impressed with what he heard. He could reduce the costs of his packs by nearly 75%! However, the minimum 1000 units per purchase order was cause for concern. Currently, this represented the total annual units sold for his most popular pack, the P-2. He felt that 1000 unit orders would increase his inventory investment and inventory risk considerably. These discussions also led Brian to consider another alternative. Since the number of domestic contract sewers was decreasing, many of the smaller niche product suppliers were searching for production sources. Brian wondered if he could expand his production capacity and manufacture niche products for other small firms in situations similar to his as way of growing his own business. Brian thought that the higher profit margins for niche products could allow a domestic operation to compete by supplying products for other smaller operations.

On the way back to the ULA shop in Logan, Brian thought about the production alternatives. If almost everyone in the industry was moving production offshore, should he do likewise? Would he be able to remain cost competitive with them? Or should he use his domestic production as another distinguishing characteristic for ULA products? Could he offer the same domestic production and a "Made in the USA" designation for other niche companies in a manner that would be profitable?

References

- Jordan, R., Dixon, A., Cole, G., Van Horn, L., Schultz, D. and Dreher, R. (2001) *Lightweight Backpacking 101: An Introductory Manual for Lightening Your Load Today*. 1st edition. Beartooth Press.
- Outdoor Industry Foundation (2005) *Outdoor Recreation Participation Study*. 7th edition for 2004. Boulder, CO.
- Miles, J. (2005) "Made in Vietnam" *Backpacker*, August, Volume 33, Issue 233, Number 6. Mohonk Preserve, NY.

Discussion Questions

1. What would you recommend to Brian about the production situation? Should ULA manufacture domestically or go offshore for their production?
2. What would you recommend to Brian about the increasing ULA's sales?
3. If Brian were serious about selling ULA, what price should he ask?

Exhibit 1: Outdoor Recreation Participation Study Selected Findings
(Source: Outdoor Industry Foundation)

Backpacking Participation Summary

Backpacking Frequency and Outings Among Americans 16 and Older

Frequency	1998	1999	2000	2001	2002	2003	2004
1 time	34%	25%	31%	24%	31%	35%	38%
2 times	24%	21%	23%	17%	25%	27%	19%
3 to 6 times	27%	30%	26%	28%	25%	25%	28%
7 to 10 times	5%	12%	12%	11%	8%	9%	8%
11 to 30	9%	10%	6%	12%	8%	4%	5%
31 or more times	1%	2%	3%	8%	3%	1%	2%
One-Time Frequency	34%	25%	31%	24%	31%	35%	38%
Average Frequency	6.0	6.0	5.0	8.0	6.0	4.0	5.0
Total Outings (Millions)	98	98	69	126	85	54	66

☐ = Significant difference from 2002

Backpacking Demographic Profile Trends of Participants

Dimension	1998	1999	2000	2001	2002	2003	2004
Gender							
Male	71%	71%	71%	67%	71%	71%	75%
Female	29%	29%	29%	33%	29%	29%	25%
Age							
16 to 24	39%	32%	42%	41%	43%	43%	50%
25 to 34	23%	29%	24%	24%	18%	23%	21%
35 to 44	21%	22%	17%	17%	16%	14%	14%
45+	17%	17%	16%	18%	23%	20%	15%
Marital Status							
Married	34%	41%	35%	31%	33%	37%	32%
Unmarried	66%	58%	65%	69%	67%	63%	68%
Ethnicity							
Caucasian	84%	83%	79%	79%	79%	70%	69%
African-American	4%	7%	5%	8%	7%	10%	10%
Hispanic	5%	4%	7%	8%	7%	8%	9%
Asian	5%	4%	5%	3%	4%	6%	5%
Other	2%	2%	4%	2%	3%	6%	7%
Children <18							
Yes	4%	49%	54%	36%	41%	50%	55%
Household Income							
<\$40k	NA	33%	37%	48%	43%	42%	38%
\$40k - \$79k	NA	35%	41%	39%	31%	37%	40%
\$80k+	NA	18%	22%	12%	26%	21%	22%
Region							
Northeast	21%	17%	7%	21%	15%	20%	20%
South Central	36%	37%	30%	32%	38%	37%	28%
North Central	13%	19%	27%	16%	21%	11%	14%
West	31%	27%	35%	31%	25%	32%	38%

☐ = Significant difference from 2002

Exhibit 2: Ultra Light Adventure Equipment Products

The P-1

The P-1 is a top loading backpack. Pack design emphasizes simplicity, on-trail access and comfort. “Cradle-style” shoulder strap anchors result in better load transfer. Using a dense, removable quarter-length foam framesheet reinforced with a carbon fiber tube for greater comfort and load control provides additional shoulder support. This prevents the shoulder straps from collapsing inward. The P-1 is compatible with most rolled/folded foam or air sleeping mattresses.

24 oz. 4,250 cubic inch capacity \$125.00



P -1 Standard Features

Back/Lumbar padding
Contoured shoulder straps
Bellowed side mesh pockets
Dual extension collars
Single ice axe loop / retention strap
Side compression straps
Front mesh pockets
Sternum strap
Removable padded hip belt
Removable foam / carbon fiber ¼ length framesheet
Load lifters

Exhibit 3: Ultra Light Adventure Equipment Products (continued)

The P-2

The P-2 is a full-suspension top loading backpack. Pack design emphasizes traditional components of comfort with highly functional yet simplified accessories. The P-2 is capable of hauling loads upwards of 40 lbs, making the transition from heavier loads to a lighter weight approach more attainable. The pack's full framesheet also provides greater comfort between long re-supplies or through waterless stretches. All suspension components are removable.

47 oz. 4,900 cubic inch capacity \$210



P-2 Standard Features

Internal frame, fully padded back panel
Contoured shoulder straps
Padded/removable hip belt
Sternum strap
Bellowed side mesh pockets
Dual extension collar
Side compression straps
Bottom compression / accessory straps
Front mesh pocket
Front shock cord
Dual hip belt pockets
Durable Dyneema Gridstop

Exhibit 4: A tour of the Ultra Light Adventure Equipment shop

ULA World Headquarters, featuring 1,200 sq ft of sewing paradise. ULA moved into this shop, a former 3-car garage, in late December 2003. Up until late January 2004, the shop was heated with an old wood stove, until Brian ran out of wood and was sewing in 0 degree Fahrenheit weather for a week until the heater was installed. Brian considered this to be a definite improvement. His home is only 20 paces from the shop door, so he has difficulty escaping the allure of work. The following images provide an idea of ULA's facilities and production process.



Unassuming garage on the outside...



...manufacturing paradise on the inside.



Southwest corner of the shop. Standing close to the wood stove and looking northeast. Ms. Juki is in the foreground. Leg shackles not pictured.



Looking due north at the P-2 Shelf. Pre-assembled and inventoried P-2 parts are stored in an assortment of bins. This may seem a bit archaic in terms of inventory, but it provides a quick and accessible sense of what we have, or what is needed, without having to run to the computer to check "the numbers."



Northwest corner of the shop looking out of the garage door.



Northeast corner of ULA World Headquarters. Cutting table in the foreground.



My Corporate Cubicle. Thankfully when the garage doors are open, we get a nice breeze and "The Office" does not seem too claustrophobic. Now, back outside for a moment.



This shed is adjacent to the south side of the garage. It provides a handy place for storing sheets and rolls of foam. Before the doors were just drab corrugated steel...we thought they needed a little spice...therefore the addition of some inner-city flavor courtesy of Brent, a local tattoo artist and graffiti enthusiast. Ok, back indoors...



Gary the Chopper. Rigged up hot knife for cutting different webbing lengths. Out of the box it is a manual cutter. After some modifications it is now operated with a foot pedal.



Amity at the Cutting Table. Liquor boxes on the shelf behind her do not represent a drinking habit. They just happen to be the ideal size for storing the pack parts for individual orders and are readily available at the State Liquor Store, which is not open on Sundays, and does not have a drive-thru window.



Mr. Bartack. Probably the most moody machine I have ever owned. Reliable, but finicky.



Ms. Juki in the distance, Flora (a Juki 8700) in the foreground. Although a new addition to the shop, Flora (lightweight and delicate) plays well with the others, and is used primarily for prep assembly.



Final pack reinforcement courtesy of Mr. Bartack. Amity has a special touch with Mr. Bartack. She seems to be the only one able to tame the beast when he gets grumpy.



Amity at the helm sewing P-2 back panels.



Big D, the Double Needle Juki.



Ms. Juki, the love of my life. Also my first industrial machine. Many a day and night has been spent with this fine lady, sewing steadily beneath her 60 watt glow. She is used for all the finishing work.



As goofy as the phone headset is, wearing it is really the only way to get any sewing done during the day. It always nice to hear from folks and 'talk shop' as it takes the monotony out of my daily chores.



Once the packs get sewn up and bartacked, then we inspect them, put on all the final hardware, install frame sheets, and get them ready to ship.



Amity boxing up packs.



Brian taping up boxes, ULA Rig in the loading bay. The van is used for delivery when the weather is poor.



Otherwise I load up the bike and head to UPS or the Post Office for package delivery.



That pretty much concludes the tour. If you are ever in Logan, Utah, feel free to swing by to check out the operation firsthand. We'd love to show you around.

Exhibit 5: Ultra Light Adventure Equipment Income Statement

INCOME STATEMENT	2005 (6mo.)	2004	2003
Revenues:			
Sales	\$104,828	\$176,462	\$136,975
Returns	-\$198	-\$5,642	-\$459
Interest Income	\$5	\$25	\$18
 Total Revenue	 \$104,635	 \$170,845	 \$136,534
Cost of Sales:			
Cost of Goods Sold	\$21,780	\$90,085	\$58,102
Sub-contracts	\$9,184	\$8,789	\$8,518
 Total Cost of Sale	 \$30,965	 \$98,874	 \$66,620
 Gross Profit	 \$73,670	 \$71,971	 \$69,914
Other Expenses:			
Wages	\$4,854	\$13,287	\$6,672
Payroll & Business taxes	\$480	\$1,905	\$1,161
Rent	\$6,000	\$8,031	\$2,500
Maintenance & Equip.	\$3,459	\$4,257	\$2,332
Insurance	\$1,501	\$1,434	\$1,008
Professional Fees	\$1,488	\$3,681	\$4,000
Supplies	\$205	\$2,931	\$1,830
Postage	\$1,647	\$2,424	\$2,465
Freight	\$4,439	\$9,560	\$8,015
Advertising	\$630	\$1,082	\$3,377
Travel	\$422	\$528	\$1,512
Bad Debts	\$0	\$77	\$0
Dues	\$100	\$29	\$60
Utilities	\$0	\$504	\$955
Telephone	\$969	\$2,154	\$1,429
Bank & Credit Card Expense	\$2,829	\$4,542	\$3,866
Vehicle Costs	\$2,129	\$2,350	\$1,771
Depreciation		\$7,100	\$8,471
 Total Other Expenses	 \$31,152	 \$65,876	 \$51,424
 Operating Profit	 \$42,518	 \$6,095	 \$18,490
 Interest Expense	 \$767	 \$2,590	 \$595
 Profit Before Taxes	 \$41,751	 \$3,505	 \$17,895

Exhibit 6: Ultra Light Adventure Equipment Balance Sheet

Balance Sheet	2005 (6mo.)	2004	2003
ASSETS:			
Current Assets:			
Cash	\$15,679	\$5,745	\$6,558
Inventory:			
Raw Materials	\$5,109	\$9,956	\$14,913
W-I-P	\$1,213	\$2,449	\$3,882
Finished Goods	\$612	\$1,705	\$3,661
 Total Current Assets	 \$22,613	 \$19,855	 \$29,014
Property & Equipment:			
Production Equipment	\$4,941	\$4,941	\$2,741
Office Equipment	\$1,792	\$1,792	\$405
Vehicles	\$17,047	\$17,047	\$17,047
Wildman Assets	\$18,500		
Total Property & Equipment	\$42,280	\$23,780	\$20,193
 Total Assets	 \$64,893	 \$43,635	 \$49,207
LIABILITIES & CAPITAL:			
Current Liabilities:			
Trade Credit	\$4,191	\$4,384	\$2,497
Deferred Taxes	\$485	\$0	\$442
Notes Payable	\$1,418	\$6,573	\$1,565
 Total Current Liabilities	 \$6,094	 \$10,957	 \$4,504
Long-term Liabilities:			
Vehicle Loan	\$0	\$4,679	\$10,602
Wildman Loan	\$7,240		
Total Liabilities	\$13,334	\$15,636	\$15,106
Equity			
Owner's Capital	\$16,390	\$34,101	\$20,690
Owners Draw	-\$6,575	-\$16,708	-\$12,847
Net Income	\$41,744	\$10,606	\$26,258
 Total Equity	 \$51,559	 \$27,999	 \$34,101
 Total Liabilities & Equity	 \$64,893	 \$43,635	 \$49,207

Exhibit 7: Comparison of Backpacks

Model	GVP Gear-G4	GoLite-Gust	ULA-Equipment (Ultralight Adventure Equipment)-P1	Granite Gear, Inc.-Virga
Manufacturer	GVP Gear	GoLite	ULA-Equipment (Ultralight Adventure Equipment)	Granite Gear, Inc.
Total Capacity (cu. in.)	3100-4600	3600-4650	2500-3800	3200-3600
Weight (lbs., oz)	1,0	1,4	1,8	1,4
Price (\$US)	\$85.00	\$99.00	\$115.00	\$95.00
Number Of Dealers	1	515	2	520
Mail Order	Available	Available	Available	Not Available
Catalog	Not Available	Available	Not Available	Available
Address 1	3764 Cavern Pl.	4888 Pearl East Circle	36 S. Main St.	2312 10th St.
Address 2	-	-	-	P.O. Box 278
City	Carlsbad	Boulder	Logan	Two Harbors
State	CA	CO	UT	MN
Zip	92008	80301	84321	55616
Phone	760-720-0500	888-546-5483	435-753-5191	218-834-6157
Website	www.gvpgear.com	www.golite.com	www.ula-equipment.com	www.granitegear.com
Email	glen@gvpgear.com	info@golite.com	info@ula-equipment.com	info@granitegear.com
User	Men	Men	Men	Men
Frame Type	Frameless Rucksack	Frameless Rucksack	Frameless Rucksack	Frameless Rucksack
Load type	Top-loading	Top-loading	Top-loading	Top-loading
Country	USA	USA	USA	USA
Other Features				

Source: Backpacker.com (Gear Finder)

Exhibit 7: Comparison of Backpacks (continued)

Model	Gregory Mountain Products-G Pack	Mountainsmith-Ghost	Granite Gear, Inc.- Nimbus Ozone	ULA-Equipment (Ultralight Adventure Equipment)-P2
Manufacturer	Gregory Mountain Products	Mountainsmith	Granite Gear, Inc.	ULA-Equipment (Ultralight Adventure Equipment)
Load type	Top-loading	Panel-loading	Top-loading	Top-loading
Total Capacity (cu. in.)	2650-3100	3100	3800-4200	3000-4500
Weight (lbs., oz)	2,9	2,2	3,0	2,15
Price (\$US)	\$149.00	\$150.00	\$195.00	\$210.00
Number Of Dealers	750	600	520	2
Mail Order	Not Available	Not Available	Not Available	Available
Catalog	Available	Available	Available	Not Available
Address 1	27969 Jefferson Ave.	18301 W. Colfax Ave.	2312 10th St.	36 S. Main St.
Address 2	-	Bldg. P	P.O. Box 278	-
City	Temecula	Golden	Two Harbors	Logan
State	CA	CO	MN	UT
Zip	92590	80401	55616	84321
Phone	800-477-3420	303-279-5930	218-834-6157	435-753-5191
Website	www.gregorypacks.com	www.mountainsmith.com	www.granitegear.com	www.ula-equipment.com
Email	customerservice@gregorypacks.com	service@mountainsmith.com	info@granitegear.com	info@ula-equipment.com
User	Men	Men	Men	Men
Frame Type	Internal	Internal	Internal	Internal
Country	USA	USA	USA	USA
Other Features				

Source: Backpacker.com (Gear Finder)

Ultra Light Adventure Equipment

Teaching Note

Kent E. Neupert and Alan Frankle wrote this teaching note for the purposes of classroom discussion. The authors do not intend to illustrate either effective or ineffective handling of a managerial situation. Certain names and other identifying information may have been disguised to protect confidentiality.

Funds were provided by The Global Business Center (Home of UW CIBER) at the University of Washington under a grant from the U.S. Department of Education.

Copyright © 2005 Kent E. Neupert and Alan Frankle

Teaching Approach

Ultra Light Adventure Equipment (ULA) describes issues facing many entrepreneurs involved in international business people today: offshoring of production, sales growth and exit valuation. ULA is a small outdoor products company, in particular backpacks, that has enjoyed good sale growth in its short history. The industry is undergoing a shift in production as many large brands begin to source their products from Asia. For a small company built on high quality domestic production, this represents an important decision. Should ULA join the crowd and have their backpacks manufactured in Asia at significantly lower costs or should they deepen their domestic production commitment and use it as a differentiating feature in the marketplace? Also, as the company has grown, its owner has begun to question whether he should sell the company in order to capitalize on his hard work.

This case can be used to discuss the following issues:

What are the trade-offs between manufacturing products domestically or offshoring the production to a foreign producer?

Is there a relationship between the production location decision and the market positioning strategy used by a firm?

When an entrepreneur looks to exit a company, what is a reasonable valuation?

Discussion Questions

- 1. What would you recommend to Brian about the production situation? Should ULA manufacture domestically or go offshore for their production?**
- 2. What would you recommend to Brian about the increasing ULA's sales?**
- 3. If Brian were serious about selling ULA, what price should he ask?**

Class Discussion Format

- 1. What would you recommend to Brian about the production situation? Should ULA manufacture domestically or go offshore for their production?**

This question represents a significant decision for Brian. In 2004, he outsourced almost half of his production to Serratus in Canada and earned \$71,971 gross profit on sales of \$170, 845, or about 42% gross profit margin. In the first six months of 2005, when he bought all of his production in-house, he earned \$73,670 on sales of \$104,635 (about 70% gross profit margin). It is important to highlight that his gross profit in six months in 2005 was about what it was in all of 2004. This is underscored by the cost of goods sold (COGS) percentage. In 2004 it was about 52%, while in 2005 it was about 20%. This represents a significant margin capture for Brian. For a small company like ULA, this represents important cashflow. However, the Asian producers do seem to be able to produce at significantly lower costs than the Canadian producer. In fact, they are now sourcing from Asia.

In addition to the cost aspect, the quality issue can be considered. Although a generalization, Brian believes that he produces a better quality backpack in-house than he would if it was made in Asia. Given that Brian is very concerned about product quality and will have to do any rework in his shop, the decision of where to produce could have important cost and quality implications. Also, will the product perform at the same levels that ULA customers have come to expect?

Related to the location decision is the issue of minimum order size. To outsource the production, Brian will have to order a minimum of 1000 units. This represents his total unit sales for 2004. Can he expect to sell the same number of units. The large lot size (for him) represents a significant risk and investment in inventory and storage.

In the end, Brian decision of where to produce will have wide ranging implications for the company.

2. What would you recommend to Brian about the increasing ULA's sales?

The question of whether Brian needs to increase sales is closely linked to his of where to produce. If he begins producing in Asia, he will probably need to increase sales to accommodate the minimum production order. If he maintains in-house domestic production, he will not feel as pressured to increase sales.

If Brian goes with offshore production, he could look at getting ULA products into more retail locations. In 2005, he has only three locations where customers can buy his backpacks. Certainly increasing retails outlets would lead to increased sales. But it would also require increased time from Brian in identifying and developing these new retail locations. Can he afford the additional time required? Will he want to spend his time this way? Wouldn't he rather be hiking?

If Brian continues in-house domestic production he can be assured that his products will always meet his quality expectations. This domestic production will allow him to emphasize his "Made In My Garage, Utah, USA" image in the marketplace. For many backpacking participants and enthusiasts, this could be a strong differentiating product characteristic. Using this strategy, Brian could focus on cultivating his current customer base and producing high quality packs for them. There is no strong indication that Brian is interested in growing the business quickly or in size.

If Brian does maintain the domestic production, he could investigate the potential of producing for other small niche companies. Admittedly, the "Made in the USA" origin could be a strong asset in this market segment. Slowly adding new production customers would allow him to manage this growth.

3. If Brian were serious about selling ULA, what price should he ask?

What are the major steps for valuing ULA Equipment?

1. Create pro-forma Free Cash Flow to Equity Statements based on future growth assumptions for the company.

Free Cash Flow to Equity is the same as the Equity Residual Approach to Valuation. All operating and debt financing costs are subtracted from net sales. Income taxes are deducted, leaving only the cash flows available to the equity owners.

The following analysis is based upon the 6-month financials for 2005. The 6-month results have been extrapolated to a 10-month fiscal year. The extrapolated 2005 results are then used to create pro-forma financials for the next 6 years. The first 5 years we assume a 10% growth rate, and thereafter a constant growth rate of 5% per annum. The 2005 results include the cost of an owner's salary of \$24,000 per year. This salary grows at a rate of 5% per annum. Taxes are assumed to be 15%. Free cash flows to equity are

then computed for the first 5 years with the sixth year's FCFE used to compute a terminal value. The discount rate used is computed using the "build-up approach" common in small business valuations.

2. *What are the appropriate grow rates?*

Students can do many "what-ifs" in terms of growing the company. We use 10% for 5 years as a conservative estimate and 5% thereafter.

3. *What "Cost of Equity" is appropriate for ULA?*

We suggest using the "build-up approach" to estimate the cost of equity. This methodology creates benchmarks from observable rates and historical risk premiums. We begin with the current 30-year government bond rate and add an historical premium for an average large cap stock. From there we increase the rate with a small cap premium but decrease the rate for the advantage of control through 100% ownership. We then add specific risks for ULA itself to arrive at a final cost of equity of 23.55%.

4. *What is the Value of ULA under the above assumptions?*

$$\text{ULA Value} = \text{FCFE}_1/(1+k_e)^1 + \text{FCFE}_2/(1+k_e)^2 + \text{FCFE}_3/(1+k_e)^3 + \text{FCFE}_4/(1+k_e)^4 + \text{FCFE}_5/(1+k_e)^5 + \text{TV}/(1+k_e)^5$$

$$\text{ULA Value} = 61,458/(1.2355) + 68,114/(1.2355)^2 + 75,435/(1.2355)^3 + 83,489/(1.2355)^4 + 92,348/(1.2355)^5 + 522,614/(1.2355)^5$$

$$\text{ULA Value} = 49,742 + 44,619 + 39,995 + 35,826 + 32,075 + 181,507$$

$$\text{ULA Value} = 383,765$$

$$\text{TV} = \text{FCFE}_6/(k_e-g) = 96965/(.2355-.05) = 522,614$$

Definitions of terms

TV: Terminal Value

FCFE: Free Cash Flow to Equity