Business Plan

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EXECUTIVE SUMMARY

The steady growth of the ski and snowboard industry over past years has created market conditions that are ideal for the entry of new startup manufacturing companies. The recognition of this opportunity prompted our response; the role that wood ski and snowboard cores play in the industry is forecasted to be a success within the innovation driven market environment. RJM Specialty Laminates cores are tailor-made, using interior British Columbia grown Douglas-fir wood. Our products are able to utilize the inherent “green” value of a renewable resource in the manufacture of ski/snowboard components. The wood is being cleared for ecological reasons. Thinning of the small diameter Douglas-fir is occurring to provide the habitat characteristics essential to the mule deer winter range. Densely grown stands have implications on wood properties as well. The harvested Douglas-fir contains a very tight grain and therefore has high strength and durability properties - perfect for wood ski and snowboard cores. RJM Specialty Laminates cores are to be made wholly of Douglas-fir. When our cores are introduced into what is an integral part of the ski and snowboard, a quality product is achieved by our clients. Our cores are durable and maintain excellent characteristics over a long product life.

Our success will be based on a solid customer base of startup ski and snowboard manufacturers seeking to make a high performance and high quality product. Additionally, we will provide consumers with the “green” choice, capturing a significant market share of the many people who base purchase decisions on environmental values. We will foster close personal relationships with our customers and with the industry at large. As we become more established we will look into diversifying through the utilization of multiple wood species when producing our cores. These objectives will help to develop a strong name for RJM Specialty Laminates in the most efficient manner. Our company size, structure and technology will allow us to make rapid decisions and produce trials and results with accuracy and speed. Concepts and ideas could become prototypes in hours. This will prove very beneficial for the research and development side of the business as well as helping customers quickly find a perfect custom design to suit their needs.

This business plan will include a financial analysis for this venture. It will include in it a summary of capital start up costs as well as a cash flow projection for the first year of operations. Sales and operations are expected to start out slow, but quickly gain momentum as we gain new customers and confidence. The details set out in the plan will represent our best efforts in identifying and defining the role we can play within our sector, industry and market.

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1.0 INTRODUCTION

1.1 Business Background

Ken Day, the manager of the UBC Alex Fraser Research Forest, near Williams Lake, BC, is currently harvesting large amounts of small diameter, tight grain Douglas-fir (*Pseudotsuga menziesii*). The majority of the logs are harvested below the utilization standards and are too small for most mills to handle (Day 2005). These logs are being harvested to accomplish overriding social and ecological objectives. Due to decreased fire presence, the forests have accumulated large amounts of small trees. Competition in the dry climate has decreased the forest productivity and quality habitat area for mule deer winter range. The decreased vigor of the forests due to competition has increased the chance for bark beetle outbreaks and increased the potential for much more severe catastrophic wildfires. These issues are being mitigated through commercial thinning of small diameter Douglas-fir trees, providing sustained mule deer habitat and improving forest health. A more detailed description of the context, problem, and constraints is provided in the WOOD 465 handout attached as Appendix I.

This plan has been developed to utilize the small diameter Douglas-fir to the financial benefit of both the Alex Fraser Research Forest and this start up business. RJM Specialty Laminates, a start up company, will produce solid Douglas-fir ski and snowboard cores diversifying later into mixed wood cores and other laminated wood products.

1.2 General Company Description

RJM Specialty Laminates evolved as a product of four students from UBC's Faculty of Forestry, Michael Vorhies, Rene Buys, Jameson Craig and Michael Rocksborough-Smith. RJM Specialty Laminates was developed to introduce Douglas-fir laminated ski and snowboard cores to the snowsport industry. Our knowledge of wood properties and processing will allow is to provide our clients with a quality ski and/or snowboard core that meets their customized specifications. In addition, RJM Specialty Laminates will look into diversifying our product to incorporate a mixture of wood species in forming cores to provide a greater variety of core structural characteristics.

RJM Specialty Laminates will be strategically located in the Kamloops area. The location will take advantage of relative close proximity to the timber source (288km South). Kamloops is situated well for market access as four major highways, numerous shipping companies, two major rail lines and an airport all service the area.

RJM Specialty Laminates will enter into a strategic alliance with UBC Alec Fraser Research Forest regarding the supply of timber. RJM Specialty Laminates will develop further partnering and simple contractual relationships with ski and snowboard manufacturers. Letters of intent from several ski/board manufacturers have been included in Appendix II.

A flat management structure has been set up by RJM Specialty Laminates. Flat management structures are "relatively unencumbered by internal constraints and the organization has energy to deal with the world that goes right on changing" (The Gleaner, March 17 2004, organizing ourselves for success). It can therefore aid in the development of products quickly and efficiently. In addition cross- functional teams will be developed to improve work processes that cross organizational bounds and solve problems that have impact on multiple parts of the company (Human Resource Development Council 2005). In this way the departments will work efficiently and smoothly together. The Organization of the company will consist of an Owners Group, General Manager and five departments described further in Section 8.

1.2.1 Business Philosophy

Mission Statement – *Manufacturing high quality, ecologically friendly, Douglas-fir ski and snowboard cores to a dynamic industry*.

Vision Statement – We will produce superior ski and snowboard cores. We will become a trusted and reliable staple in ski and snowboard manufacture with great potential to further develop our product. We will deliver a product that exceeds our customers' expectations in every aspect.

Values – customer oriented, sustainable, forward looking, reliable, high quality.

1.3 Overview of the Ski Core Industry

It is difficult to identify the ski and snowboard industry as there is such variability in how companies go about the procurement of their cores. Some companies produce their cores in-house while others rely on manufacturers to produce the core to their specifications. There is also great variability in the materials used to generate a ski or snowboard core. Wood and foam cores are the major materials used but some companies are using metals, fiberglass and carbon fibers in their core production.

The wood ski core industry utilizes various techniques but all generally produce a vertically laminated block of which to cut out core blanks. Multiple woods are used and selected based on their structural qualities such as their modulus of rupture (MOR), modulus of elasticity (MOE), specific gravity (SG) and shear strength. Woods that are currently used in ski manufacturing can be found in Appendix III. Ski and snowboard core manufacturers have found success when they have developed a reliable customer base through providing a consistent and unique product (S. Martin, Donek Snowboards (personal communication, April 5, 2005. Scotty Bob, a high end ski manufacturer, expressed that, “companies that use wimpy woods and synthetic foam cores can add various laminates to approach the performance of a great wood, but they can't come close to the durability” (2005). It is this attitude combined with

2.0 INDUSTRY ANALYSIS AND TRENDS

2.1 History of Skis and Snowboards

Figure 1. Traditional skiing, ca 1900

If one were to track the development of skis through time one would find a product rich with innovation and adaptation. Skis have moved from crude pieces of equipment formed from pieces of wood to highly designed, performance based equipment utilizing the most advance technologies and materials available. Ski shape and design is fueled by the sports participants innovation on the slopes. One such development milestone, arguably the biggest of its kind for any sport in the past, is the snowboard. When Sherman Poppen joined two skis together with some doweling for his daughter in 1965 he could have had no idea that his idea planted the seed for modern snowboards in the minds of industry pioneers like Jake Burton and Tom Sims (Transworld Snowboarding 1996). Once again it was the introduction of a suitable way to fix the rider’s foot on the board which set the sport rocketing on its way.

2.2 The Economic Sector

The manufacturing sector in Canada:

- 4.7 million people depend on the sector for their livelihood; 2.5 million directly employed
- Accounts for more than $400 billion in exports
- Performs 75% of private sector R&D
- Directly accounts for 21% of economic activity

(Canadian Manufacturers and Exporters 2004)

2.3 The Industry

The longstanding development and streamlining of the ski industry coupled with the consolidation of the snowboard industry in the late 1990's has resulted in very tight and focused conditions, with existing relationships becoming more and more entrenched (Linton 2000). The snowboard industry in particular remains one of the fastest growing areas in the Canadian sporting goods industry (Linton 2000).

Interestingly enough, the inherent seasonal nature of the sport does not unduly limit off-season industry performance in the retail end of ski and snowboard manufacture. The release of new product lines and models each year provides those consumers who want to be on the cutting edge with the newest technologies, while those looking for entry-level products can still be very content with purchases of last year's overstock at sale prices. The distribution of products to end-users is primarily through sport and outdoor retail chains as well as web-specific retailers.

Research and development (R&D) plays a massive role in the industry. Both skiing and snowboarding have well established international level competitions and gaining an edge over your competitor, for both the athletes and the manufacturers, is everything. At his point there is little scope for influential technological advances in the field, but in a sport where milliseconds may make the difference between getting a medal and being sent home empty-handed, it is the little things that count. Although you never see it (unless you break your ski in half), the core of the ski/snowboard is a major focus of R&D. It represents the largest component in the manufacturing process and largely defines the performance capabilities of the ski or snowboard.

3.0 MARKETS

3.1 Introduction

Skiing and snowboarding are global pursuits. Wherever there is snow – and in some cases even where there is not – you will find people launching themselves down icy slopes. The manufacture of skis and snowboards is not limited in the same geographic and climatic sense but is roughly located along the same lines; North America and Europe host the majority of production.

3.2 Market Size and Trends

The market for ski and snowboard manufacture is a huge one. The market for the manufacture of high-quality wood ski/snowboard cores is, by association, equal in scale. Both these markets are intrinsically linked to the number of people who ski/snowboard as they are the end-user. Information on these users can be used to determine the market size.

- During the 2002/2003 season alone, a total of 4,162,000 (15.3%) Canadians aged 12 years and over participated in one or more forms of skiing[1].
- There was an increase of 617,000 participants from last year (5.8%)
- 2002/2003 showed the first increase in participation for several years

(Source: Canadian Ski Council – Facts & Stats 2004)

A subtle indicator of the current market size is the carrying capacity of big-name brands. The market is flush with large-scale international organizations; huge brands like K2, Rossignol, Atomic, Head, Salomon, Dynastar, Volkl and Volant are all able to claim massive influence on the ski consumer. Snowboarding is equally flush with exclusive boarding giants like Forum, Lib Technologies, Burton, Da Kine, Volcom and many more – all performing at a very high level while selling very similar products. The number of companies that are competitive and successful within this relatively narrow product market is a valid indicator of market size. The market for specialty components in the manufacture of skis and snowboards has access to this broader market.

A significant trend which has and will continue to have sweeping implications for business and competition in many industries is the increasing demand for high standards of environmental and social responsibility built into the design, manufacture, and distribution of products (Ottman 1998).

[1] Includes snowboarding

An increased global awareness of the social and environmental ramifications of the choices that individuals make every day – from what coffee they drink to what car they buy - has businesses striving to prove that their products are safe choices. More than ever, the "total product" must incorporate high standards of environmental and social responsibility within every aspect of production and distribution possible. Industries which are related to the outdoors generally involve consumers who place a relatively high value on the environment and sustainability; therefore, "green" business practices and products become even more important

3.3 Psychographics and Demographics

Skiing and snowboarding attracts a wide variety of personalities and attitudes to the slopes. However, several common themes may be found deep in the psyches of cash-strapped student riders and chalet-owning millionaires alike. Along with skis or a board, participants generally possess an adventurous spirit, a high appreciation for the outdoors, and healthy outlook.

The ski/snowboard industry boasts an immensely diverse market demographic. In Canada especially, people of all ages, in all walks of life and of all social standings go skiing to the tune of millions of people each year (Canadian Ski Council 2004).

Table 1. Age profile of alpine skiers (Adapted from Canadian Ski Council 2004)

Age Profile of Alpine Skiers

	Number of Alpine Skiers	(% Change)	Alpine Skiers % By Age Group
• 12-17 years-old	778,000	+10.9%	23.4%
• 18-24 years-old	771,000	+ 9.4%	23.2%
• 25-34 years-old	562,000	+ 1.6%	16.9%
• 35-49 years-old	828,000	+ 6.3%	25.0%
• 50-64 years-old	301,000	+23.9%	9.1%
• 65 years or older	78,000	+ 4.0%	2.4%

NOTE: Alpine skiers include snowboarders. A diverse age class structure with a significant consumer base with almost 50% of participants under the age of 24; A younger generation who have grown up with the environment and sustainability issues permeating society.

Table 2. Household incomes & home ownership of alpine skiers. (Adapted from Canadian Ski Council 2004)

Household Income & Home Ownership of Alpine Skiers
• 49.2% of Alpine Skiers have household incomes greater than $75,000. (41.9% in 2002)
• 22.2% of Alpine Skiers have household incomes between $50,000 and $74,999. (27.7% in 2002)
• 13.2% of Alpine Skiers have household incomes between $35,000 and $49,999. (10.9% in 2002)
• 7.5% of Alpine Skiers have household income between $25,000 and $34,999.
• 2.0% of Alpine Skiers have household incomes between 20,000 and $24,999.
• 5.9% of Alpine Skiers have household incomes of less than $20,000.
• 76% of Alpine Skiers own their own dwelling (as opposed to renting 24%).

Note: 71.4% of participants come from household incomes greater than $50 000. This represents a large consumer base with the financial means to pay a slight premium for the products which are more aligned with consumer values regarding the environment.

For further demographic information on the ski and snowboard industry in Canada, see the Canadian Ski Council reference.

4.0 COMPETITION

4.1 Competitive Position

There are many materials and methods used to produce ski and snowboard cores. Manufacturers will “use wood or synthetic cores or composites of wood and injected foams that are engineered and customized to meet the needs of various skiing styles” (Jacoby 2002). There is tremendous variability in the ski and snowboard industry regarding the type of core material used. There are multiple smaller companies that produce the ski from core to completion. Companies such as Scotty Bob located in Silverton, Colorado and Donek Snowboards located outside of Denver, Colorado produce custom wood core skis and snowboards respectively. They operate on a small scale and can produce custom boards to individuals. There are also small companies such as Prior Skis and Snowboards located in Whistler, BC. Prior sends a Computer Assisted Drafting (CAD) file to a manufacturer in Quebec who in turn produces a core to the given specifications.

Beyond wood core skis and snowboards there are companies who develop their cores from synthetic materials. Salomon skis utilize a core that they have developed from synthetic materials and marketed as “Spaceframe” construction. Atomic skis have developed a core that incorporates magnesium channels to help dampen ski vibration (Atomic 2005).

Currently there is a great deal of competition among ski manufacturers to provide a unique and innovative ski core that provides a superior product. How a company gets there is quite diversified. Companies either manufacture their cores in-house or design a core to be manufactured elsewhere; the machinery, materials and techniques utilized by different companies is an even further variation on the process (S. Martin, Donek Snowboards (personal communication, April 5, 2005).

4.2 Strategic Opportunities

This business venture aims to introduce a Douglas-fir ski and snowboard core which no other company is currently producing. Additionally, there is currently no company in North America that is solely manufacturing ski and snowboard cores (S. Martin, Donek Snowboards (personal communication, April 5, 2005). By utilizing current machinery and a computer numerically controlled (CNC) router we will have the ability to produce large ski core lines to companies. In addition, our knowledgeable staff can aid ski and snowboard manufacturers in product development. Our machinery will allow us to move from concept to reality in six hours as compared to more generic mills where it would take up to two weeks to produce a new core shape. This enables RJM to test many different designs while presenting options to possibly industry customers. Since we will be producing cores from rough cut lumber we will have the ability to provide customers with a product anywhere along the core production line.

The Douglas-fir will be harvested from the Alex Fraser Research Forest for ecological purposes. This will be played up in the marketing of our product.

4.3 Factors Affecting Ability to Compete

There are multiple factors that affect RJM Specialty Laminate's ability to compete:

- Customer Reliability – Ski and snowboard core manufacturers have in the past had difficulty finding reliable customers. Some core manufacturers have gone out of business due to orders being met and customers not paying (S. Martin, Donek Snowboards (personal communication, April 5, 2005) Careful selection of clients and detailed payment schemes will need to be developed to ensure complete payments are made.
- Unit Price – Finding an appropriate price to sell the wood cores at can be an issue. The price needs to be reflective of the material and operating cost while still remaining competitive in the market. Ski and board core manufacturers not charging enough for their product is another reason such manufacturers struggle in the business (S. Martin, Donek Snowboards (personal communication, April 5, 2005).

- Solely Wood Cores – RJM Specialty Laminates will only be able to produce wood ski and snowboard cores. Innovation will have to come from product design and construction techniques and will not be able to utilize new materials.

4.4 Market Share Distribution

The market share distribution for wood ski and snowboard cores is currently unknown. A partial list of ski and snowboard manufacturers and their principle core type is provided in Appendix III

4.5 Future Competition

As skiers and snowboarders continue to push the limits and progress their respective sports the ski industry will continue to innovate and evolve with them. There will be a continued drive to utilize new materials and techniques that become available to manufacturers. Manufacturers will gain a competitive edge through providing a superior 'total product' and RJM Specialty Laminates will be able to do this. It is also to our advantage that we have the capability to quickly adapt to new demands in the production of wood ski and snowboard cores.

4.6 Barriers to Entry

This venture has several potential barriers to entry:

- RJM Specialty Laminates has a high capital investment and relatively low unit sales price.
- Willingness for companies to switch their current core material and or process.
- Number of new entrants into the ski and snowboard manufacturing business requiring some level of core manufacturing.

5.0 STRATEGIC POSITION AND RISK ASSESMENT

5.1 Strategic Position

RJM Specialty Laminates will not purely pursue 'operational effectiveness' but will seek to develop an 'activity system' that creates customer value distinct from competitors (Martin, R.J. and M.E. Porter 2000). Our activity system will incorporate a series of interrelated decisions that will develop over time and make it difficult for competitors to match our product.

The ability for RJM Specialty Laminates to quickly adapt to meet new design specifications provides a significant advantage for the business. The utilization of a CNC router and other machinery in a specialty factory make it possible for us to work closely with customers in developing their product line. Not only will we be able to produce their current line of ski and snowboard cores but we will also be able to aide them in carrying out their research and development needs. Most companies outsource the making of the ski cores to companies that are not primarily core manufacturers and this makes it difficult for these ski and snowboard companies to test out prototypes. It allows us to move from concept to prototype in six hours as opposed to two weeks for other manufacturers (Donek 2005).

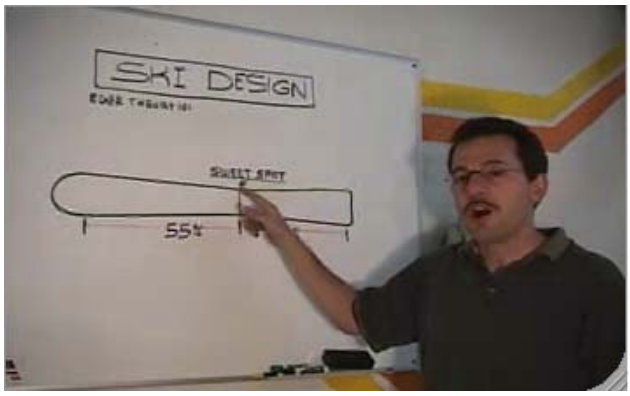

Figure 2. R&D Technician (Scotty Bob 2005).

Douglas-fir has structural qualities that will make a superior ski and snowboard core. So far there are no skis that are utilizing a completely Douglas-fir core. The cores we produce from this wood can also be marketed as eco-friendly. RJM Specialty Laminates will also be looking to acquire additional wood from Alex Fraser Research forest to utilize other species unique structural qualities to be combined with the Douglas-fir to provide further product possibilities.

5.2 Risk Assessment and Opportunity Balance

It is important to be aware of the internal and external environment within which RJM functions. Knowledge of such information can be a valuable tool in understanding our company's position in the business and allowing for appropriate strategic development. A tool that can be used to determine our strategic position is known as a SWOT Analysis (ICMBAI 2005). It outlines the internal strengths and weaknesses and the external opportunities and threats to our venture.

5.2.1 SWOT Analysis

Strengths

- Location with good distribution access.
- Low stumpage fees on wood.
- Guaranteed access to, and supply of, high end wood.
- In-house expertise regarding ski and wood manufacturing.
- Positive feedback from interested potential clients.
- Ability to adapt to different customer demands.

Weaknesses	-	Large start-up cost with minimal return in first couple years.
	-	Ability to only use wood in the manufacture of cores.
Opportunities	-	Production of an ecologically friendly product.
	-	Involvement in a market where ski and board manufacturers are looking for product advancement.
	-	Filling a current void in specialty ski and snowboard core manufacturers.
Threats	-	Minimal new entrants into ski and snowboard manufacturing.
	-	Willingness of current companies to switch to a new core manufacturer or to allow a core manufacturer to produce their cores.
	-	Reliability of customers to provide complete payment.
	-	Development of superior materials that wood can no longer compete with.

6.0 MARKETING PLAN

6.1 Target Markets

Our primary target market will be high end ski manufacturers. In particular one manufacturer has already expressed interest in using our ski and snowboard cores. This company is *PRIOR* snowboards and skis based out of Whistler British Columbia. They are a smaller more grassroots type company whose goal is to expand into the international markets. As well, we would push our solid Douglas-fir wood cores in the ski manufacturing industry to other upstart companies wishing to make a premium quality high strength ski. Primary focus will be on more independent companies. Our current state of production will mean that we have to focus on these smaller companies until we develop our reputation and a more sophisticated and refined production process. Additionally we will make ourselves known to skiers themselves and ski towns around North America, because this is where most of the minds that start up a ski company will be coming from. Most companies will most likely be within North America, however if interest comes from overseas then steps will be taken to make our cores available to them.

Over time as our company evolves efforts will be made to push our cores onto manufacturers that are already well developed. Our cores will be marketed as an alternative to what they already have, boasting an environmentally friendly core, as well as a superior strength and durability. We will move into a higher level of production, allowing us to produce a lot more cores, to meet this kind of target market demand.

6.2 Marketing Mix Breakdown

6.2.1 Product

Figure 3. Snowboard cores

The main product being produced by RJM Specialty Laminates will be solid Douglas-fir ski and snowboard cores. The cores will be made of vertically laminated strips of solid Douglas-fir. There are very few ski and snowboard manufacturer's that use a single type of material throughout the entire core of the ski. They often use a blend between two different types of woods, or even synthetics and woods. These weaker cores often require sheets of aluminum or titanium laminated on by the manufacturer to match the ideal amount of strength and durability. Our cores will not need any of these extra laminates as they will have a naturally superior flex, strength, and durability. These cores will be especially strong and durable due to the unique properties of our wood source (see appendix IV for wood characteristic comparison). The characteristics of our wood will maintain their natural flex for a much longer period of time compared to cores made with weaker wood or synthetic foam which brake down and lose elasticity more quickly. Our cores, with their high strength will also allow them to have excellent edge hold and lateral stiffness, resulting in a very high performance ski or snowboard.

RJM Specialty Laminates will have the unique ability to go from a concept to a finished prototype core in a matter of six hours using our CNC router. This will allow our product to be fully customizable to a ski manufacturer's specific need. We will be able to provide our customers with additional support in research and development with the aid of our research and development staff member.

As time allows, our company will grow and develop into making cores with a mix different species of wood. This will allow us to provide additional core characteristics to our customers. RJM Specialty Laminates will also look into the production of fully manufactured skis and snowboards,

right from start to finished product. Our designs will be cutting edge and because of our fast turn around time from idea to prototype, we will be able to perform extensive research and development on our products before releasing them to the markets.

6.2.2 Place

RJM Specialty Laminates will have a channel of responsibility that starts right in the UBC Alex Fraser Research Forest where the Douglas-fir trees will be harvested. The channel of responsibility will continue through to our finished product being received by our customers, the ski and snowboard manufacturer's. We will outsource the logs to PAL Lumber in Williams Lake, BC. PAL Lumber will mill and kiln dry the wood, supplying RJM Specialty Lumber with rough cut, kiln dried lumber. The lumber will then be brought to our facility in Kamloops, BC, the ski and snowboard cores will be produced. The Kamloops location is perfect because of the close proximity to our wood source as well as all our transportation needs. Initially, RJM Specialty Laminates will be dealing with the relatively local ski and snowboard manufacturer, PRIOR. Shipping charges will therefore be kept to a minimum. However, we plan to move into any available markets within North America, and if demand allows it, overseas.

Inventories are kept to a minimum as we are a "make to order" business. Ski and snowboard cores will be shipped as they are finished. The primary mode of shipping out the product will be by truck, through a courier. When our markets start to spread out throughout North America, and depending on order size, air transport will be considered. Kamloops is situated well for the subsequent distribution of our product as the Coquihalla (Hwy 5), TransCanada (Hwy 1), Yellowhead (Hwy 16), and Highway 97 converge there. In addition over 25 trucking and transport companies that ship goods across B.C., Canada and the U.S are located in Kamloops (Venture Kamloops Business Development 2005). Both the Canadian National Railway and Canadian Pacific Railway service Kamloops in addition to the Kamloops airport. Venture Kamloops Business Development states, "The airport is in a prime location to handle air cargo given the surrounding infrastructure and lack of air and ground traffic congestion" (2005). There will be no intermediary on our supply chain, we will ship the ski and snowboard cores directly to our customers from our facilities.

6.2.3 Promotion

RJM Specialty Laminates will use the personal selling model for promotion. We will use a direct presentation of the information pertaining to our products for our customers. Our main form of promotion will rely on relationship building with our valued customers. Lines of communication will

be very open between our company and the ski and snowboard manufacturers that we will be dealing with.

Our company will rely a lot on “word-of-mouth” advertising that our customers will pass around throughout the industry. As the company grows bigger we will start directly approaching companies, showing them our product, and building industry relationships. Trade shows will also be a major form of advertising for us. We will attend all North American Trade shows pertaining to our industry and we will have displays and knowledgeable staff on hand at these shows showcasing our superior product. We will have a company website; however, it will not be very extensive and no sales will occur over it. This is the case because we will be relying on direct customer contact, and would rather deal with our customers in person. The website will contain basic information pertaining to our product, as well as promoting it over our competitors’ products. The website will also contain contact information for the company and where we are located.

6.2.4 Price

In the short term we will use a cost-based pricing system. This is because initially we will want to meet our manufacturing target rate of return. Eventually we will move towards a value-based pricing system as our high end product will grab a premium price. People will buy our product for its high quality and high level of performance and consistency associated with our cores.
Fixed costs involved with our company are quite high because of all the specialized machinery that is needed in order to produce our high quality cores. Our initial capital investment will involve purchasing such machinery as a CNC router as well as many other wood working machines. In Appendix V there is a list of the machines initially needed to start up the company as well as the costs associated with them. Overhead costs will involve rent of the facility, as well as utilities such as power, phone, internet, and heat. Another factor to consider is the cost associated with getting rid of waste that is a result of machining our wood cores. Variable costs associated with our business are the raw materials such as logs, lumber and glue. Other fluctuations in prices would be associated with shipping.

7.0 OPERATIONS

7.1 Facility

RJM’s manufacturing facility located in Kamloops will be capable of taking rough cut, kiln dried lumber and running all the necessary steps in order to produce Douglas-fir ski cores. The facility will consist of several different wood processing machines. Our planning team has decided not to

incorporate the milling and drying of the lumber into our facility. We will instead focus on the secondary processing aspects of making ski cores. The milling and drying of the lumber will be outsourced to the PAL lumber mill in Williams Lake. By cutting this step out, we will reduce capital expenditure, operations requirements and overall facility size.

We are aiming to start off as a smaller business that focuses on meeting customer's specs to a high standard. We feel that this will be much more easily achieved by cutting out the primary operations in our facility so that we can focus on fine tuning our products processes and in turn its quality. Over time we will look into the prospect of opening our own primary processing mill but outsourcing these operations right now is the most appropriate for our economic outlook.

The facility will include a testing area where all products can be tested to ensure they are free of manufacturing defects. This will show the customer that they are getting a quality product that they feel comfortable using for their skis. Flex, torsion and pull strength will all be tested before the product is shipped out.

Our facility will have a good presence of technologically advanced machines. We will make use of a CNC router and several Instron testing machines. Continuous training for our employees will keep them knowledgeable about the equipment they use and the tasks they are performing. Machines will be upgraded to meet the demands of the industry and to keep us competitive. We will pride ourselves on having technologically advanced machinery that will help us produce high quality ski cores.

7.2 Production

The production at our mill will be fairly standard of most secondary processing facilities.

- Our production will run 8 hours a day, 5 days a week.
- There will be 4 equipment operators, 1 plant manager and 1 maintenance technician, 1 R&D Technicians and 1 Sales and Marketing personel.
- The production process will be continuous meaning each machine will start a new order as soon as the previous is completed.
- Customer's orders will be prioritized in chronological order.
  However we will make exceptions for customers who are reliable and have built a good business relationship with us.

The production process of ski and snowboard cores is very similar to other wood manufacturing processes in the wood industry. The rough dimension lumber from the mill is ripped, planed, glued, finger-jointed, sanded and CNCed.

The following will explain the steps involved in making ski cores and the machines required.

1) The table saw will rip the rough cut, kiln dried lumber into the necessary thicknesses in order to be vertically laminated. Defects will be cut out of each piece in order to have consistent strength properties throughout the core.
2) The planer will then plane the pieces down to the proper thickness so that they can be laminated.
3) The finger jointer will finger joint the pieces together to get the appropriate length.
4) The pieces will be put into the laminator machine to be laminated into blocks.
5) The blocks are planed again to their final dimensions.
6) The core blanks are cut out of the blocks.
7) The core is drilled for binding mounts.
8) The blanks are pre-sawn to get the general side-cut shape.
9) The blocks are sanded
10) The blocks are put into the CNC machine and profiled into the desired shape.

Figure 4. CNC Router (Scotty Bob 2005)

7.3 Inventory

RJM will have an area in the facility for inventory storage. Since we are receiving a kiln dried product it is important to keep it out of the elements to reduce variability in our final product. Unfortunately we are constrained by the size of our plant and therefore can only store enough inventory to meet our largest customers order's if needed. This will reduce our holding cost and avoid the need to increase our storage space.

7.4 Customer Service and Order fulfillment

We plan on being committed to our customers and building strong business relationships to stay competitive in the market place. RJM offers custom profile ski cores to adapt to different styles and performance specifications in the industry. We will focus on quality and ensuring our customers orders are fulfilled to their satisfaction because they are the soul reason we exist.

In the past, ski core companies ran into problems where customers would place an order and not pick up or pay for the final product. We plan on imposing a 50% deposit on any order to reduce our losses if by chance a customer decides to “jump ship” after they place an order.

8.0 MANAGEMENT AND ORGANIZATION

Our business will revolve around a team environment. Every employee will have the same importance as the other and will be expected to treat all employees the same. Employees are encouraged to give input and engage in open discussion when they recognize areas of opportunity. However, the plant manager will undoubtedly have the final say. Good communication between employees will further aid the team in achieving their goals which will add to the company’s success.

Our labour force will be centralized around quality productivity. The quality of our product will be our main concern. We will start by producing high quality products to gain our customers confidence, then continue by increasing our speed of production. Our goal is to stay competitive and if the balance between quality and production speed is just right then we will remain competitive. We plan on achieving this balance through communication between R&D and the machine operators. The testing technicians will be able to source the problems of failure in the product (if any) and help the operators eliminate the problem.

The management style for RJM Specialty Laminates will be flat and all employees will report to the plant manager who will report to the owners group. Being a company of smaller nature, there is no need for a board of executives until the company grows in size. The flat nature of the company will promote good communication because all the information will be centralized by the plant manager and can be immediately transferred to other employees.

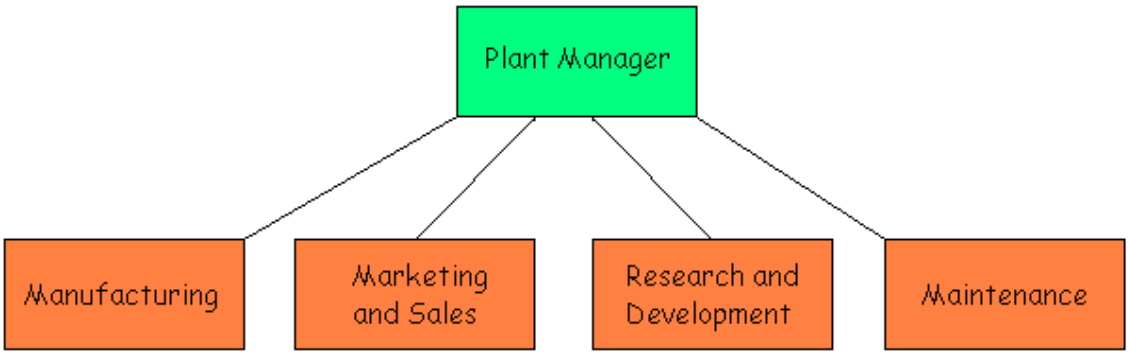

Figure 5. Flat management structure of RJM Specialty Laminates

9.0 DEVELOPMENT

A period of growth is to follow this introductory year. Although sales are likely to be limited at first, it is our goal to have an annual increase in sales of 10% on each of the first five years. It is anticipated that much of this growth will come from word of mouth among consumers as our product introduces a novel take on environmentally friendly skis and snowboards. With the same overall aim of business growth in mind, a milestone goal will be set for the start of each production year. Starting in year two, by the start of the ski season RJM will have entered into contract with a major ski/snowboard company for the development of a custom core for at least one ski/snowboard design – if not an entire line. The hope is that once our capacity to fulfill our production commitments is strained, we will have the potential to expand our business.

After the initial growth of our company, following the introduction of the Douglas-fir ski core into the industry, RJM Specialty Laminates plans to diversify our product. We will be looking to acquire different types of wood from the Alex Fraser Research Forest to utilize in the production of our ski and snowboard cores. Through the use of multiple species, combined strategically in the core, we will be able to provide our customers with more options to meet varying and developing riding styles.

10.0 FINANCIALS

A detailed financial analysis was conducted and included in Appendix V. It includes an income statement for the first year, machine capital investments, a year end summary, a break-even analysis and a balance sheet. Our calculations are based on a per unit sale of the ski cores of twenty dollars. Machine costs were determined through internet supplier catalogues. Machines

were selected based on our capacity requirements and specialty needs. Earnings based on monthly production after tax is $33,117.00.

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APPENDICES

Appendix I. WOOD 465 Term Assignment Handout

[Term Assignment]

WOOD 465
Business Management in the Wood Industry

context

The UBC / Alex Fraser Research Forest, located near Williams Lake, BC, is currently facing a unique business challenge – one with social, ecological and economic dimensions. The following excerpt, prepared by the staff at the UBC / Alex Fraser Research Forest, describes the background to the problem in detail:

> *The character of dry forests of interior British Columbia (and much of western North America) has changed significantly over the past century. Due to changes in land use and settlement patterns, the frequency of forest fires has been drastically reduced. Currently, most sample plots have not had a fire for a period exceeding the historic maximum.*
>
> *As a result of their disturbance history and ecology, many of the dry forests have accumulated very high densities of small trees and lack large trees. Because the forests are moisture-limited, the large numbers of small trees compete for soil water with large trees, and reduce the vigour of the large trees. This has been documented as a causal factor in bark beetle attacks in dry forests of California, and is suspected of contributing to outbreaks of Douglas-fir bark beetle in the Cariboo.*
>
> *Mule deer winter ranges cover approximately 275,000 hectares in the Cariboo, much of it in the interior Douglas-fir (IDF) biogeoclimatic zone. Since mule deer are reliant on the cover and forage provided by large Douglas-fir trees (Armleder et al. 1994), it is important for managers to ensure that a continuous supply of these trees is available throughout each winter range.*
>
> *Management plans for mule deer winter ranges are currently being formulated, as directed under the integration of the Cariboo Chilcotin Land Use Plan (CCLUP Implementation Committee 1996). Those winter range plans will direct a significant harvesting program towards Douglas-fir stands with a small average diameter. Such a program, described as "commercial thinning", is important because it will provide enhanced mule deer habitat in the future, and because it allows access to some timber. Without such a program, very high densities of small trees will not allow for release of residual stems, and new large trees will not be recruited into the stands in a timely way.*

You are a new start-up business and you have decided to take advantage of this "opportunity" by preparing a **business plan** for the utilization of the small diameter Douglas-fir that is being commercially thinned at the UBC / Alex Fraser Research Forest. The purpose of this business plan is to acquire sufficient capital from a lending institution to start-up and maintain a new business. You are independent of the Alex Fraser Research Forest, but have developed strong ties with them and intend to enter into a partnering arrangement of some kind.

problem

A **business plan** is *a written document which (1) identifies the nature of a business opportunity; (2) shows how a company will turn opportunity into profit over time; and (3) sells a business concept.* This is how you should approach the problem. Using various sources of secondary information as a starting point, you will prepare a bank-ready business plan outlining a strategy for the use of small diameter Douglas-fir from the UBC / Alex Fraser Research Forest. In particular, you will:

1. explore how you can turn the challenge of large volumes of commercially thinned small diameter Douglas-fir into a viable business opportunity;
2. explore a range of new product / market opportunities and select the most appropriate one(s);
3. analyze all possible marketing alternatives for the product(s) selected and list the pros and cons of each; and
4. show conclusively that a market exists, that your business concept is realistic, competitive and viable, and that it will make money in the long term;

constraints

- This is a real-life problem supported by the UBC Research Forest and the UBC Campus Sustainability Office's SEEDS (Social, Ecological, Economic Development Studies) Program. Make sure that your reports are of a high caliber – they will be read by these organizations and the recommendations will be seriously considered. One option has been explored, namely the conversion of biomass to energy to create small heat and/or electrical power systems in the community. However, there are many viable business possibilities for overcrowded small-diameter Douglas-fir, including structural posts, beams and lumber, other building materials, furniture, structural roundwood, animal bedding, wood-plastic hybrid products, and fence posts, to name a few examples. To view some previously completed assignments, visit the UBC SEEDS website at http://www.sustain.ubc.ca/matrix/seedsindexs/seedsland.htm (refer to WOOD 465 and FORESTRY 465 and note that some of these are marketing plans, not business plans).
- This term assignment is worth 25% of your final grade. You must work in groups of four or five, and there must be at least two FRM students and two WPP students in each group.
- Reports should be no longer than 20-25 pages double-spaced (including graphics, excluding appendices).
- You have until end of term to complete this task – the due date is Thursday, **April 7, 2005**.
- Use supporting evidence / market data where appropriate to substantiate the claims in your report and include all of your references. In particular, be sure to include information pertaining to the market size and potential of your product choices, your short and long term capital requirements, an overview of the competitive landscape for this business venture, and any literature that you can uncover on market possibilities for small diameter trees (*ie*, similar cases / ventures). Also, be sure to lay out a program of action and a timetable for implementing your recommendations.
- If necessary, you may consider more than one type of product. Be sure to include implications of this decision on production and marketing strategies. Also ensure that you describe your selected product(s) in detail, and that you adequately discuss the 'pros and cons' of your approach.
- Note that the use of small diameter Douglas-fir as a raw material presents very specific product / market challenges related to knots, density, strength, grain structure, etc. Make sure that your report researches and addresses these material characteristics.
- It costs approximately $50 / cubic metre (excluding profit and risk) to harvest the small diameter Douglas-fir from the UBC / Alex Fraser Research Forest, broken down as follows:

logging to roadside	$33 / cubic metre
loading and hauling	$12 / cubic metre
layout and administration	$4.75 / cubic metre
stumpage:	$0.25 / cubic metre

- Assume that there is a sufficient volume of commercially thinned small diameter Douglas-fir to sustain this business over time.
- If you have any questions, please arrange to meet with me or the TA or drop by my office during office hours. Questions (especially regarding the resource) may also be directed to Ken Day, Manager, UBC / Alex Fraser Research Forest (ken.day@ubc.ca).

hints

Developing a business plan is difficult – in general, there are no right or wrong answers. As you develop your strategy, you will likely have more questions than answers. *What is our business (profit) model? How much money do we want (need) to make? What product or products should we manufacture? How do we market these products and to whom? Who is our competition? How much money do we need to get this business up and going? How can we maintain the business over time? And so on*…Don't be alarmed! In many cases, decisions must be made with incomplete information. It is acceptable to say that more information is required to make a decision (*eg*, market research), but try not to rely on this too much. Try to develop a mastery of the facts by determining what the main issues of the case are and how they relate to your business goals. A good place to begin is with the tried and true literature review. Alternatively, you may want to brainstorm several alternative courses of action and determine the pros and cons of each. In either case, it is definitely worth consulting resources which describe how to develop effective business plans (there are many available).

Appendix II. Communication of Intent from Ski and Snowboard Manufacturers

Communication with K2 (ski and snowboard manufacturer):

Michael,

Call any time. That would be great if this project ended up with us using that wood. I still haven't heard on our annual Fir consumption, I'll ask again.

Later,
Ken S.

--
Ken Schiele
Product Development Engineer
K2 Sports
19215 Vashon Hwy SW
Vashon, WA 98070
206-463-3631 x1493
--

-----Original Message-----
From: Michael Vorhies [mailto:mvorhies@gmail.com]

Sent: Tuesday, March 15, 2005 7:13 PM
To: Ken Schiele
Subject: Re: FW: From the K2 Skis Web site

Ken,

Thank you for your response. This is a class project but the problem is very real. The project is addressing utilization problems that the UBC Alex Fraser Research Forest is having with Douglas-fir they are harvesting for Mule Deer winter range habitat. This problem is also much broader than just the research forest. Many woodlot owners and Crown forest areas in BC will be looking for a way to utilize this small diameter, tight grain wood as it is harvested for wildlife and fire protection purposes. We were told in class that the Research Forest Manager will be reviewing all the business plans and if one (or more) looks particularly promising or possible it may be funded and followed through with. I would be very excited to see this wood used in your skis.

I noticed your phone number in your email. May I call you to address some specific questions I have and to give you a better idea of what this project is about?

Thank you very much,

Michael Vorhies

On Tue, 15 Mar 2005 09:10:02 -0800, Ken Schiele
<Ken_Schiele@k2sports.com> wrote:
Michael,

Yeah, these might work for skis. We currently use quite a bit of Fir for both ski and snowboard cores (I don't recall exactly what species, nor do I know the diameter of the trees).

The lumber is brought into our facility, milled down to 20mm wide boards, and these are laminate together to create a block for a ski core. So I think dimensionally, this wood would work fine - at least the trees are quite a bit bigger than our raw lumber needs.

Attached is a picture of one of our bio flex cores, that might help show what we've got here. Other cores are all fir, some are 1/2 fir (alternating laminates lengthwise with other wood, usually spruce or aspen).

I've send our purchasing department an email asking what total qty of fir we order on an annual basis. I'll forward this info when I receive it - I imagine this would be useful for your business plan.

Does this wood really exist, or is this only a class project? If it's a real case, we'd be interested in trying it.

Regards,

Ken S.

Ken Schiele
Product Development Engineer
K2 Sports
19215 Vashon Hwy SW
Vashon, WA 98070
206-463-3631 x1493

-----Original Message-----
From: K2 Skis Customer Service
Sent: Monday, March 14, 2005 1:30 PM
To: Ken Schiele; Aaron Ambuske
Subject: FW: From the K2 Skis Web site

Can you guys handle this question or should I send it to somebody else...?

Thanks,

Justin York
K2 Sports Customer Service and Technical Support
19215 Vashon Hwy. SW
Vashon, WA 98070
(800) 426 1617 ext. 1349
justin_york@K2sports.com

-----Original Message-----
From: Michael Vorhies [mailto:mvorhies@gmail.com]
Sent: Monday, March 14, 2005 1:20 PM
To: K2 Skis Customer Service
Subject: From the K2 Skis Web site

Name: Michael Vorhies
Email Address: mvorhies@gmail.com
Address: 5240 SW Humphrey Blvd.
City: Portland
State/Province/Country: Or
Zip/Postal: 97221

Phone: 604-228-1796
Comment/Question:

I am a University of British Columbia student in the faculty of forestry. I have been assigned a project in my wood business class to create a business plan based on a large amount of small diameter Douglas-fir trees that are being harvested to maintain mule deer winter range habitat. The goal of the business plan is to utilize this wood. As an avid skier I am looking into the possibility of using this wood for ski cores. The wood is tight grain and has a high MOE. It does not have many branches. The diameter of these trees are approx. 20cm (8in) and smaller. I am wondering if it is even possible for this wood to be used in making ski cores? Is there someone I can contact to discuss wood requirements for ski cores with? Thank you very much for looking into this for me.

Communication with Prior (ski and snowboard manufacturer):

Thanks for the note Mike,

As small Douglas fir is likely similar to aspen in useable wood content it may make be suitable for us. For wood cores we would have to provide instructions to a mill with the right type of machinery...and this to me is the challenge.

If you are able to dig up a few specialty mill names/numbers in Williams Lake and/or Prince George and let me know that would be great. Feel free to call number below with a few additional questions at your leisure.

Dean

604-935-1923
www.priorsnowboards.com
www.priorskis.com
Built right... in Whistler

-----Original Message-----
From: Michael Vorhies [mailto:mvorhies@gmail.com]

Sent: Tuesday, March 15, 2005 7:38 PM
To: Dean Thompson
Subject: Re: wood cores

Dean,

I have been told by my professor that there is a cohort of wood available to be tested. If you have facilities to test the cohort I would be happy to arrange a supply for you. Otherwise, the Center for Advanced Wood Processing here at UBC can perform the tests if this business plan progresses to such a level.

The Douglas-fir for this specific business plan would be coming from the Alex Fraser Research Forest near Williams Lake, BC. However, the utilization problems the research forest is having with the small diameter, tight grain fir is not unique. This wood as it is being harvested throughout BC to improve wildlife habitat and reduce forest fire risk, especially in urban interface areas. The trees diameters tend to be too small to make standard dimensional lumber and new uses for the wood need to be found to recoup the harvesting costs.

As for wood manufacturers who can process kiln dried vertically laminated wood products there are many small specialty mills around Williams Lake that could be looked into. Additionally, as

part of the business plan we can include the need for a mill to be set up to address this specific issue.

I would like to continue to stay in touch as I would be very excited to see this wood used in your skis and/or snowboards. I noticed your phone number in the email. Perhaps I can call you to have some specific questions answered and give you a better idea of this project?

Thank you very much,

Michael Vorhies

On Tue, 15 Mar 2005 07:58:41 -0800, Dean Thompson
<dean@priorsnowboards.com> wrote:
Hi Michael,

Thanks for your interest in Prior.

This sounds like a good wood source - we have used some Douglas fir in the past. Please advise if you have a cohort who can test the weight, pull strength, etc against comparative properties of aspen and maple (I believe it would be more like maple). We are a west coast company we are very interested in using wood from the west coast if possible.

Note that our cores are produced in Quebec and their natural wood source is aspen and maple. We are interested to get our cores manufactured here
if we can find a suitable wood core manufacturer. If you have any ideas regarding wood manufacturers who can process kiln dried vertically
laminated wood products please let me know.

Kind regards,

Dean
604-935-1923
www.priorsnowboards.com
www.priorskis.com
Built right... in Whistler

-----Original Message-----
From: Michael Vorhies [mailto:mvorhies@gmail.com]
Sent: Monday, March 14, 2005 9:58 PM
To: info@priorskis.com
Subject: wood cores

I am a University of British Columbia student in the faculty of forestry. I have been assigned a project in my wood business class to create a business plan based on a large amount of small diameter Douglas-fir trees that are being harvested to maintain mule deer winter range habitat. The goal of the business plan is to utilize this wood. As an avid skier I am looking into the possibility of using this wood for ski cores. The wood is tight grain and has a high MOE. It does not have many branches. The diameter of these trees are approx. 20cm
(8in) and smaller. I am wondering if it is even possible for this wood to be used in making ski cores? I realize you use a maple/aspen mix for our cores but I was hoping there someone I can contact to discuss wood requirements for ski cores with? Thank you very much for looking into this for me.

Thank you, Michael Vorhies

Appendix III. List of Ski and Snowboard Manufacturers and their Core Material

COMPANY	*WEBSITE*	*CORE TYPE*
Salomon Skis	www.salomonski.com	Foam Core (space-frame technology)
Rossignol Skis	www.rossignol.com	Synthetic (fibro-metal)
K2 Skis	www.k2skis.com	Fir/Spruce blend
Atomic Skis	www.atomicski.com	Beta 4 profile (wood/synthetic blend)
Volkl Skis	www.volkl.com	Wood/fiberglass
Armada Skis	www.armadaskis.com	Wood/synthetic
Dynastar Skis	www.dynastar.com	wood
Prior Snowboards and skis	www.priorsnowboards.com	Maple/aspen
Donek Snowboards	www.donek.com	Ash/poplar
Scotty Bob	www.scottybob.com	Sugar maple

Appendix IV. Wood commonly used in skis and their properties.

SPECIES	SG	MOE	MOR	SHEAR
Pseudotsuga menziesii Douglas fir	0.48	1.79	13.1	1.40
Picea Sitchensis Sitka Spruce	0.40	1.57	10.2	1.15
Acer Saccharum Sugar Maple	0.63	1.83	15.8	2.33
Fraxinus smericana White Ash	0.60	1.74	15.0	1.91
Populus Tremuloides Trembling Aspen	0.38	1.18	5.4	0.85

Compiled from Center for Wood Anatomy Research (2005)

Appendix V. Financial Documents

Income Statement

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Financial Plan												
Sales	166,660	166,660	166,660	166,660	166,660	166,660	166,660	166,660	166,660	166,660	166,660	166,660
Loans	1440000											
Cost of Goods Sold												
logs	4,913	4,913	4,913	4,913	4,913	4,913	4,913	4,913	4,913	4,913	4,913	4,913
lumber	2,250	2,250	2,250	2,250	2,250	2,250	2,250	2,250	2,250	2,250	2,250	2,250
shipping	335	335	335	335	335	335	335	335	335	335	335	335
wood glue	400	400	400	400	400	400	400	400	400	400	400	400
Direct Labour												
Equipment depreciation	8,059	8,059	8,059	8,059	8,059	8,059	8,059	8,059	8,059	8,059	8,059	8,059
Wages	37,083	37,083	37,083	37,083	37,083	37,083	37,083	37,083	37,083	37,083	37,083	37,083
Total Cost of Goods Sold												
Materials, Labour Costs	44,981	44,981	44,981	44,981	44,981	44,981	44,981	44,981	44,981	44,981	44,981	44,981
General Expenses												
Marketing	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000
Insurance	1,900	1,900	1,900	1,900	1,900	1,900	1,900	1,900	1,900	1,900	1,900	1,900
Maintenance	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500
Miscellaneous	500	500	500	500	500	500	500	500	500	500	500	500
Office Expenses	250	250	250	250	250	250	250	250	250	250	250	250
Rent	5,400	5,400	5,400	5,400	5,400	5,400	5,400	5,400	5,400	5,400	5,400	5,400
Travel	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
Utilities	700	700	700	700	700	700	700	700	700	700	700	700
Loan Payments	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000
Total Expenses	124,270	124,270	124,270	124,270	124,270	124,270	124,270	124,270	124,270	124,270	124,270	124,270
Operating Profit	42,390	42,390	42,390	42,390	42,390	42,390	42,390	42,390	42,390	42,390	42,390	42,390
Earnings After Taxes	$33,117	$33,117	$33,117	$33,117	$33,117	$33,117	$33,117	$33,117	$33,117	$33,117	$33,117	$33,117
Results of Operations	$33,117	$33,117	$33,117	$33,117	$33,117	$33,117	$33,117	$33,117	$33,117	$33,117	$33,117	$33,117

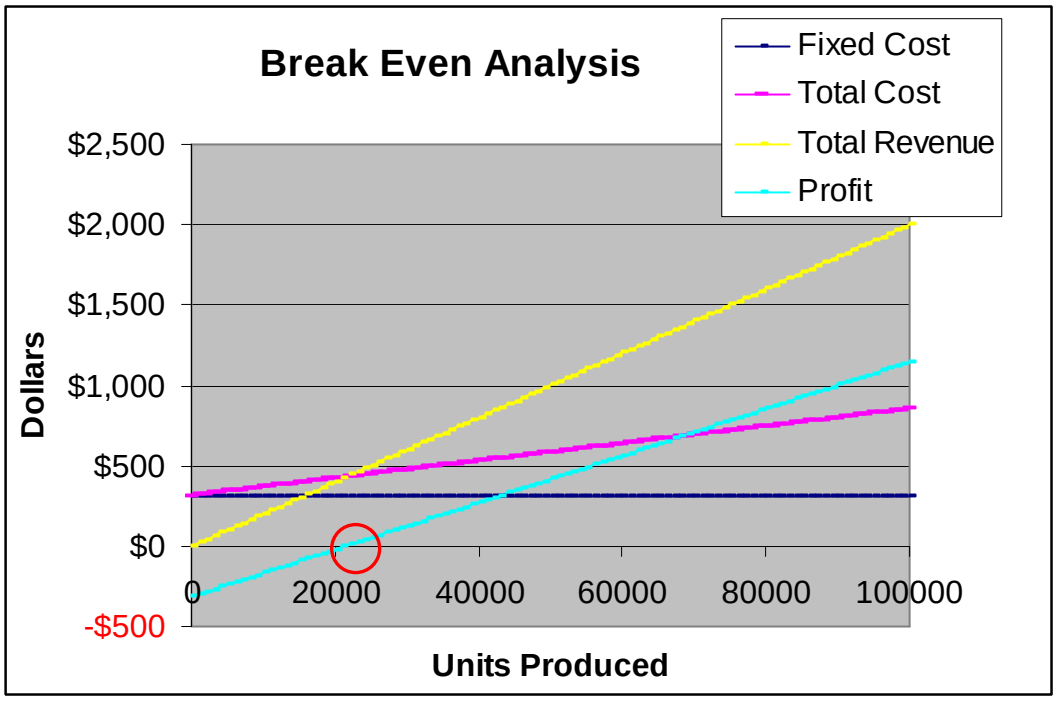
Capital Requirements	
Machinery	
Band saw 14 inch Grizzly Industrial	$600.00
Altendorf F92 Sliding table saw	$10,900.00
CNC Router Techno LC Series	$22,600.00
Shopsmith Pro Planer	$1,200.00
Jointer 8inch shopfox 2hsp	$1,000.00
Heated Pneumatic Flatbed Press Model 2211	$15,785.00
Auburn Finger Jointer (used)	$25,500.00
Dust collectin system (installed)	$3,000.00

End of First Year

Income Summary	
Sales	1,999,920
Loans	1,440,000
	0
Cost of Goods Sold	0
logs	58,950
lumber	27,000
shipping	4,020
wood glue	4,800
Direct Labour	
Equipment depreciation	96,702
Wages	445,000
Total Cost of Goods Sold	
Materials, Labour Costs	539,770
General Expenses	
Marketing	60,000
Insurance	22,800
Maintenance	18,000
Miscellaneous	6,000
Office Expenses	3,000
Rent	64,800
Travel	12,000
Utilities	8,400
Loan Payments	120,000
Total Expenses	1,491,242
Operating Profit	508,678
Earnings After Taxes	397,405
Results of Operations	397,405

Break Even Point

The sales volume that RJM needs to achieve in its first year to break even (produce zero dollars in profit but recoup all associated costs), is 21 544 units, or $430 880 in sales.



○ = BREAK EVEN POINT = FIXED COST / (UNIT PRICE – VARIABLE UNIT COST)

Balance Sheet

BALANCE SHEET	
Assets	
Current Assets	*Value*
Inventory	$32,200.00
Cash	$1,400,000.00
Fixed Assets	
Machinery	$130,595.00
Office Supplies	$3,000.00
Shop	$64,800.00
Total Fixed Assets	$1,630,595.00
Liabilities and Capital	
Current Liabilities	$1,400,000.00
Long-term Liabilities	$130,595.00
Owner's Equuity	$100,000.00
Total Laibilities and Owner Equity	$1,630,595.00

Appendix VI. Assumptions made regarding the Business Plan

Market Information

- Wood core industry is closely tied to overall ski and snowboard manufacturing industry.
- Ski core market characteristics and trends can be inferred from information on this ski and snowboard market as a whole.
- Interests in outdoor activities relates to increased values placed on the environment.

Financial/Operational Information

- PAL Lumber is able to handle the small diameter Douglas-fir and meet our specification.
- Our output of 100,000 cores per year is feasible based on estimated production quotes from industry participants.
- The cost of $20 is based on the best estimates to date.
- Funding will be secured through business loans.

Strategy

- We will be able to procure additional species of wood from Alex Fraser Research Forest for further development.
- Qualities of Douglas-fir do lend themselves to making quality ski and snowboard cores, however, this plan does assume that a cohort test proves this.