Planning strategies for a motor carrier enterprise

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PLANNING STRATEGIES FOR
A MOTOR CARRIER ENTERPRISE

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Case Summary

This AMDR report was prepared with the intent of analyzing an opportunity in the trucking industry. This report outlines expected expenses and revenue that a company would incur in the first year of operation. Strategic business alternatives were developed to provide a direction for the business operation.

This analysis underscores the fact that trucking companies operate in a very turbulent environment. Rarely does anything in this industry stay constant. Competition from other carriers is very high. Driver shortages, due to drug testing and rising insurance costs, have increased the burden on small companies.

Because of the many adverse factors that influence the trucking industry and the analysis presented in this report, the decision was made to not start a trucking company at this time. Hopefully, the future environment in this industry will change and make it worthwhile to pursue starting a new trucking enterprise.
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INTRODUCTION

Consideration should be given when starting a new business. However, there is no business as competitive and fierce as the trucking industry. Jerry Calaway (personal communication, February 12, 1991). Many factors must be analyzed before operations begin. This report evaluates the start-up a trucking company. The current market environment of this industry must be considered carefully, as there are many problems which will be encountered when a new company starts out.

Currently, the industry faces these problems; rising fuel costs, driver shortages, skyrocketing insurance, and competition from other modes of transportation. Jerry Bigelow (personal communication, February 15, 1991). However, if a company were to develop a sound business plan, a new enterprise might be able to overcome these problems and succeed financially in the transportation industry.

The Applied Management Decision Report looks at alternative strategic business plans for a trucking company. Problems faced by a motor carrier are identified and what can be done to overcome them will be presented in the paper. Also covered in the report are rules and regulations that a motor carrier must follow to be in compliance with state and federal regulations. What operating authority the carrier should have, what permits the carrier should possess, and what licensing is required for each state are questions that must be addressed.

Starting a new business is difficult. In the motor carrier industry, a new business faces very high competition and an uncertain operating environment. The intent of this report is to develop a plan which will guide an entrepreneur in overcoming these obstacles.
Regulations of the Motor Carrier Industry

Before a motor carrier may haul freight, the firm must first obtain operating authority from the Interstate Commerce Commission (ICC). There are two kinds of authority under which a motor carrier can operate under. The first is common authority. This authority allows the motor carrier to haul most products (unless they are explosive or combustible) so long as they have proper insurance, permits, and authority on file with the ICC. Jerry Calaway (personal communication, February 12, 1991). Common authority allows a motor carrier to haul for any shipper willing to use their services. In most cases, a shipper will request to have the motor carrier's authority, insurances, rates, and tariff on file. The purpose of this is to resolve disputes involving claims on damaged product, or merchandise. Another reason is to clearly document the freight rates the motor carrier will charge the shipper for services performed.

The second kind of operating authority is called contract authority. Under contract authority a carrier is allowed to enter contract agreements with shippers to haul specified volumes of freight for a special rate. Jerry Calaway (personal communication, February 12, 1991). Under this authority a motor carrier agrees to provide a certain amount of equipment to a shipper at a specified rate, if the shipper provides an agreed upon number of loads to the carrier. For example, Jerry Calaway, owner of Calco Express, Inc., entered a contract agreement with Krueger International. Under their agreement, Krueger International will provide Calco Express three truckloads per week at a special agreed upon rate.
The purpose of contract authority is to allow the shipper to rely on the motor carrier for equipment over an extended period of time. Most businesses do not operate on a steady basis as sales fluctuate over time. A contract agreement protects the shipper so that sufficient equipment is available during peak sales periods. It also protects the motor carrier during slack periods as a minimum amount of freight is generated by the shipper. An advantage of contract authority is that it allows the motor carrier to forecast future business expansion. A motor carrier is able to forecast equipment and personnel needs for the upcoming years and is better able to control costs.

Another advantage of contract authority is that it more readily allows for settlement of claims and rate disputes, since these provision are part of the contract. Arguments can occur between the shippers and motor carriers about rate levels. When these are written into the contract, disputes are kept to a minimum. One disadvantage of contract authority is that a carrier must be able to handle a certain amount of freight per week for a shipper. If a carrier is unable to meet this obligation, the contract may be cancelled. A cancelled contract will force the motor carrier to find freight to haul elsewhere. Also, if a carrier is unable to haul freight, they will develop a reputation as a bad carrier.

The researcher prefers contract authority over common because it allows a carrier to enter favorable terms with a shipper. Over a period years, a good relationship can develop between the shipper and the carrier. Also, the security of having freight to haul each week lessens the pressure the carrier has on keeping the trucks loaded.
Contract authority was permitted after deregulation of motor carriers under the Staggers Act of 1980. One advantage of contract authority not generally recognized is that motor carriers who enter into favorable agreements with shippers are probably going to be able to secure their business position for a number of years in the transportation industry. Contract authority allows a motor carrier to strengthen themselves, versus the competition. Most shippers prefer to do business with a carrier that is financially stable. Also, by entering contracts with shippers, it allows the motor carrier to grow in size, creating more employment opportunities for their community.

Motor carriers are required to be licensed in each state. The International Registration Plan (IRP) allows the motor carrier to register their vehicles in the home state in which they are located. Under this plan, a motor carrier can register in several states at one time. The motor carrier will be required to possess only one license plate. Currently, there are 41 states under the IRP plan, with other states waiting for approval to join. States that are not in the IRP Plan require the motor carrier to license directly with the individual state.

The advantage of the IRP Plan is that all fees and registration are handled at one time in one office. This eliminates duplicate paperwork in each state's department. In the state of Wisconsin, licensing fees can be handled at the Department of Transportation in Madison.

Several states also require the motor carrier to carry "bingo cards" in their vehicles. Bingo cards contain state stamps that are used for registering the motor carriers. These bingo stamps are the state's authority to allow the motor carrier to move on their interstate highways.
Fuel permits are also required by many states. A fuel permit is a decal that displayed on the outside of the truck cab. The fuel permit allows the motor carrier to purchase fuel in individual states. Motor carriers are required to file quarterly fuel taxes within each state where they operate. Fuel taxes are determined by the number of miles each truck accumulates and the amount of fuel purchased in each state. By filing fuel taxes, each state receive their fair share of revenue for the number of miles a motor carrier drives in each state. The purpose of this tax is to override the impact of fuel price variations in each state. For instance, the price of fuel may be lower in Indiana than in Pennsylvania, and motor carriers may purchase more fuel in Indiana rather than Pennsylvania. The fuel taxes equalize the revenues each state receives. Using this example, the motor carrier would receive a rebate from the state of Indiana and would pay additional tax to the state of Pennsylvania.

The cost for fuel permits varies by state, ranging from $10 to $20 for each fuel permit. Bingo stamps cost from $5 and $10 for each stamp. Vehicle licensing also varies by state. Cost per tractor for all permits ranges between $800 to $2,200 depending on the state. Therefore, a carrier is able to control costs by knowing how many vehicles are planned for operation and in which states they will operate.

Before a motor carrier can begin hauling freight, the carrier must have the proper insurance on file with the appropriate states. Each state requires the motor carrier to be bonded for $50,000. The reason for requesting bond is in case a driver does some damage to a state interstate, the motor carrier will be able to pay for the damage. The cost to be bonded in a state is low,
in the range of $25 to $35 per vehicle. ICC regulations state that carriers must be bonded in the states in which they operate before beginning operations.

In addition, all motor carriers and drivers must have liability insurance before freight can be hauled. If a carrier is involved in an accident, a police report must be filed within 15 days of the accident. An important point to note is most insurance companies will provide full coverage on the truck and trailer.

However, insurance companies often provide limited coverage for "bobtailing" (tractor moving without a trailer). Therefore, it is important to know the extent of insurance coverage. The cost for liability insurance has skyrocketed in recent years. Currently, the average annual cost per truck is about $10,000. Warren Weyers (personal communication, February 18, 1991).

Most insurance companies will not provide insurance to a driver unless they have a clean record and are tested as drug free. Since this was implemented, there has been a driver shortage in the transportation industry. Due to the driver shortage in the industry, many major carriers such as, J. B. Hunt and Schneider increased the drivers' wages to keep their drivers and attract new people into their company. Many of these drivers came from small carriers who could not afford to increase their wages. Therefore, many small carriers with less than five trucks had to go out of business.

Rates charged to shippers increased from 20 to 30 percent on freight being hauled. This rate increased eventually ended up being passed on to consumers. The future of the insurance industry remains stable for the trucking industry. Costs for insurance have leveled off and there are no dramatic price increases forecasted.
Shippers require motor carriers to provide cargo insurance before freight can be hauled. This is to protect the shipper for damage and loss of their product while in transit. The standard coverage required in the industry is up to $100,000 and the annual cost per truck is about $500. Most shippers also require that the motor carrier provide liability insurance in case the driver would do bodily harm to someone at the place of loading.

Drivers are required to pass a medical exam to determine if they are fit to drive. The drivers must pass the chauffeurs driving test in order to drive a truck on the road. These records must be kept on file for at least three years. Also kept on file are the driver's log reports and trip costs reports. Logs detail the daily activity of the driver. Trip cost reports list the states driven through and mileage incurred on road trips. These records must be kept on file for three years.

The most important element of the motor carrier industry regulation is the tariff. The tariff is filed with the Interstate Commerce Commission after authority has been granted to the carrier. The tariff consists of rate levels the carrier plans to charge, rules and regulations concerning hauling, and the commodities the motor carrier plans to haul. The tariff is a written document of what the carrier plans to do. Most shippers (such as, James River, Kruger International, and The Larsen Company) require that they keep a copy of the motor carrier tariff on file. The tariff explains a carrier's rules for covering claims, loss of product, or merchandise and is often is used to solve disputes in freight bills.
This is a brief summary of the many regulations that a motor carrier must follow before they begin hauling freight. Keeping up with the regulations imposed by the ICC and the state departments is a daily part of managing the business. It is important to understand the regulations in the transportation industry because they are dealt with on a daily basis, and they change. Lack of understanding in this area creates serious problems for a motor carrier.
The motor carrier industry can be described as an industry operating in a very turbulent environment. There are many factors which affect the industry. Competition from other modes of transportation has been effective in reducing freight moved by the motor carriers. In the past five years, railroads have increased special contracts with shippers. Almost all freight which now moves by rail is done under a special contract. Railroad tonnage has increased due to the ability to write contracts with shippers. Since railroads can move high tonnage freight, their rates are less expensive than by truck. For instance, The Larsen Company can move a 120,000-pound loaded railcar to Los Angeles, CA, for $2,250. A truck carrying 40,000 pounds to Los Angeles, CA, costs $2,400. Therefore, the freight savings of moving 120,000 pounds of freight by rail, compared to trucks, is $4,950, a substantial savings. John Jameson (personal communication, March 1, 1991). The advantage truck has over rail is the ability to deliver in 3 days compared with 14 days for rail. However, customers who can control their non-perishable inventories can realize substantial savings.

Trailer on flat car (TOFC), has been increasing its share of freight movement. Also called "piggyback," providing truckload service with rail line movement has effectively reduced rates to certain areas of the country. Piggyback service means a truck delivers a trailer to a shipper for loading. The truck then delivers the trailer to a rail carrier, where it is loaded on a rail flat car. It is then moved by rail to the destination, deramped, and delivered to the customer by truck. For instance, a truckload
carrier shipped from Green Bay, WI, to Houston, TX, will take 2 days for delivery at a cost of $1,690. Freight moving by piggyback from Green Bay, WI, to Houston, TX, will take 5 days to deliver at a cost of $1,100. Joe Remitz (personal communication, March 1, 1991). The shipper saves $590 by using piggyback rather than truck.

Motor carriers also face competition from other motor carriers in securing both outbound and inbound freight. Rates are usually cost-plus and are determined mainly by what the carrier needs in order to make a profit. If rates are too high, shippers will not use their services. In the Green Bay and Fox River Valley, there is a surplus of freight. Seeking out shippers is not difficult for a motor carrier. The main problem arises in "backhaul" or inbound freight. Often a motor carrier will end up in a part of the country which are not as economically strong as Green Bay, WI. Rates out of these areas are so low that motor carriers find themselves making less than the actual cost of operation.

Areas such as New York City, Houston, Dallas, and Richmond are areas where backhaul freight is scarce. These areas have more inbound freight than outbound freight, thereby reducing the rates on outbound shipments. It is easy for a motor carrier to lose money on a truck if rates do not cover costs on both outbound and inbound loads. The chances of losing money by not covering costs is very good because the profit margin is very low.

Conversations with Joe Jadrin from Fox Midwest and Jerry Calaway at Calco Express revealed that the profit margin in the trucking industry is anywhere from two to three percent. Joe Jadrin (personal communication, March 4, 1991). Based on this information, there is little room for error.
Some areas of the country have no freight at all at particular times of the year. California and Florida, crop producing states, have little freight in the crop off-season. Carriers will find themselves "deadheading" (moving without freight) to an area which has a load. There are times when motor loads to particular areas in hopes of securing backhaul loads. They can find themselves not receiving any freight and deadheading to another location. Whenever a motor carrier is deadheading, the firm is losing money.

The key to securing backhauls is having many contacts in the transportation industry. Without these contacts, a motor carrier often relies on freight brokers whom they do not know. Freight brokers are specialists in finding freight for motor carriers. They can be found in trade journals, and they advertise in truck stops. One problem with freight brokers is the ability to collect payments for hauling freight. Trucking companies are in constant battles with freight brokers over collection. In this industry, a truck broker will often close its doors and reopen in a new location under a new name, thereby making it difficult for motor carriers to collect. ICC regulations state that payment must be made within 15 days of receipt of the invoice. However, the ICC is powerless in helping the motor carriers in the actual collection of the money. They leave it to the carriers to take the shippers to court.

Collection of invoices from other companies may take a long time. Often payment is not made until 45 days after receipt of the invoice. Jerry Calaway (personal communication, February 12, 1991). This creates serious cash flow problems for a trucking company. It is the small company that suffers the most because they have little equity in their operations.
Another important point regarding backhaul freight needs to be made. Rates are lower on backhaul freight than on outbound freight. In order for a motor carrier to be profitable, they must haul out as much outbound freight as possible. This means a trucking company must quickly get their trucks back to their base of operations. Motor carriers that move all over the country, trying to get home with a backhaul, will have a difficult time realizing a profit.

Insurance is another factor with which motor carriers must deal. In 1985, the cost of liability insurance skyrocketed for driver's coverage. Insurance companies began raising rates at an astonishing pace, due to the fact that the insurance companies were not making a profit. Jerry Calaway (personal communication, February 12, 1991). Poor drivers with bad records were costing the insurance companies millions of dollars. Coverage on drivers with bad driving records, in particular the ones with drunk driving convictions, became nonexistent. These drivers were put out of business until their records were cleared. This forced motor carriers to enforce drug testing, and in turn, created a driver shortage.

The driver shortage resulted in fewer trucks on the road, which in turn created higher rates for shippers. Large trucking companies were able to pay higher wages to drivers with clean records. Drivers with smaller companies moved to bigger companies, putting the pressure on smaller companies to attract drivers. More often than not, smaller companies could not compete for drivers. This resulted in small businesses closing their doors and consolidation in the trucking industry.
Maintenance costs are also a key part of the operations of a trucking company. Often a company will have ties with a local company and get work done at a reduced rate. However, when trucks break down in other parts of the country, reduced rates are not available. This extra cost can sharply reduce profit margins. The expected annual maintenance on a tractor can be estimated at $6,000 per year. This is based on $500 per month maintenance costs. Jerry Bigelow (personal communication, February 12, 1991). If a truck breaks down in another part of the country and needs repair, this estimate could increase by almost 30 percent.

Rising fuel costs place heavy pressure on motor carriers. The expected miles per gallon on diesel trucks is 4 to 6 mpg. Jerry Bigelow (personal communication, February 15, 1991). Because of the low fuel mileage, fuel expense is a significant portion of expenses. With the recent turmoil in the Persian Gulf, most companies felt the pressure on profits from increased expenses. Although carriers were able to raise their rates, many were not able to fully recover the rising cost of fuel.

This section was designed to give the reader a description of the transportation industry business environment. This is a very volatile business environment. Although there are many trucking companies in business today few survive more than a few years. Most are forced out of business due to high costs. The next section will consider ways for a new trucking company to enter and survive in this turbulent environment.
Identification of the Problem

In order to begin a new business the amount of equity needed must be determined. Start-up costs in the trucking industry are not low. Underestimating the cost will only hamper the growth of the business. For a new business to survive, an adequate level of cash flow must be generated and maintained.

In reviewing his personal finances, the researchers cannot afford to invest more than $60,000. Therefore, the researcher is limited as to the amount of equipment that can be purchased. Also, the researcher expects to receive a 10 percent return on his investment. This is very reasonable considering the many investment vehicles one can put their money into. For example, certificate of deposits with a bank can pay a 6.5 percent return.

It may be beneficial to have an investing partner to enter the business. Even a limited partner can help in providing capital for the business. However, one must look at how much decision making power the partner can have. What the researcher is planning for his operation allows for no deviation from the routes the trucks will use in hauling freight. Therefore, the partner will have to be comfortable with the researchers plan of operation.

The major costs that need to be addressed in analyzing a trucking enterprise are those associated with:

1. Place of operation
2. Truck equipment and trailers annual maintenance
3. Insurance and licensing
4. Wages for office personnel and drivers
5. Determining needed capital from a banking institution

Miscalculations could doom a start-up enterprise to failure. Many new companies fail primarily due to lack of understanding of the costs involved. According to John Dollar at Associated Kellogg Bank of De Pere, 80 percent of all new enterprises fail within the first year. John Dollar (personal communication, February 28, 1991). Therefore, it is important to have a good analysis of all costs involved.

The second problem to be addressed are the routes that the trucking company will use in operation. By minimizing the amount of deadheading a trucking company does, the firm's chances of profitability are higher.

There must be a careful analysis of what commodities to haul and what rates to charge for service. Then, the method of obtaining backhauls will be determined. If rates are overstated, a diminished profit margin will result.

Finally, the potential for future expansion of the trucking company must be analyzed. Growth in the trucking industry is important because many shippers are more comfortable using carriers with twenty or more trucks rather than a carrier with just three trucks. How this trucking company will start and grow within five years must be discussed.

After considering the needs of starting a new enterprise, an outline can be drawn up for the possible outcomes. One possibility is not to start the enterprise considering the high cost and the pressure of the industry; one may be better off using other investment vehicles. Another possible outcome is to
start the trucking company using all company-owned trucks. This will give the
owners total control of operations in the business. However, having all
company-owned trucks requires a greater amount of capital. The next plan
would be to use a combination of company-owned vehicles and owner operators.
Using owner operators reduces the amount of needed capital. However, it also
reduces the amount of net income brought into the operation. These options
will be presented in greater detail in the next section.
Marketing Analysis

In order to fully understand the trucking industry, a marketing analysis must be done to determine the direction the business wants to take in its operation. There are three main areas that are important to cover. They are competition, strategy, and major thrift markets. These areas must be analyzed in order to understand the trucking industry and what it takes to compete in this area.

Competition in the trucking industry is very fierce. There are many trucking companies out there cutting rates among the competitors in order to haul freight for a shipper. Also, there are many major trucking companies (such as, Schneider National and J. B. Hunt, who have a major control of many markets in the trucking industry. There are many small trucking companies in the industry who do a very good job handling small volume of freight for the shippers they serve. Therefore, it is important to determine which competitors to attack, what objectives, and strategies to use in competing against them.

Basically, the trucking company that the researcher propose to start would be competing against carriers with less than twenty trucks. The researcher would have to avoid the large carriers because of their size. The researcher cannot match their low costs and rate levels. Therefore, it is important to realize the needs of the shippers in order to determine a way in which market share can be gained from the competitors in the industry.
There are certain strategies that would be implemented in order to gain market share from the carriers in the industry. Market penetration strategy will be implemented in order to get customers to switch from using a certain carrier to haul their freight, to using my trucking company. Probably the biggest important factor that a shipper looks for is customer service. Customers want to know where their freight is all the time. Also, picking up freight on time and delivering on time is very important to a shipper. If their customers have to wait for the merchandise to arrive, it causes delays on their end.

If too many problems occur, the shippers will find another supplier. Therefore, the trucking company that the researcher is starting will be customer service oriented. Serving only a few customers in order to serve them properly.

Another strategy to be used will be market development. Most of the shippers the researcher will use are manufacturers in the paper industry. However, as the business grows, new market areas will be explored. Seeking government contracts to haul government property is an area that few trucking companies use. The United States government employs private carriers to haul their product for welfare use to market areas for the distribution. By obtaining this freight, a new market area can be entered. Also, hauling freight for retail stores such as, Pranges and Shopko has to be explored as an opportunity to enter a new market. That industry has merchandise moving throughout a large region in the country.
One aspect that must be addressed is what affect a recession would have on a trucking company. If a recession would occur, industries would slow down, which would result in less freight available to haul. If a carrier is not able to keep the trucks loaded, they will have no choice but to reduce the size of its operation. The motor carrier industry is sensitive to changes in the economy. A small carrier may end up completely out of business with a shipper that is hit hard by a recession.

The last strategy to be employed will be product development. Currently, the trailers the researcher would use are dry vans. However, in the future, the use of refrigerated trailer has to be considered. Handling specialized freight (such as, frozen foods) opens up a whole new market share. Handling this type of product requires specialized handling and, therefore, reduces the number of competitors in the industry.

Marketing analysis has to be done on major thrift markets. Certain areas of the country are better suited for obtaining backhaul freight. The farther a truck moves out from its base of operation, the harder it is for them to obtain a backhaul. That is why when starting the new business, the company would concentrate on hauling only Midwest freight. However, profitable freight can be obtained from long-haul freight. It is just a matter of being able to find out the shippers that can supply it. Often this can be obtained by word of mouth through competitors or other suppliers. Often by building a reputation in the industry as a good carrier, opens the door to new suppliers.
Next, the marketing plan has to develop the business mission in order to fully establish itself in the industry. Currently, the business the researcher is trying to establish would be a small carrier with dry vans that haul freight for suppliers in the Midwest. However, goals and objectives have to be determined and obtained to achieve success. Short-term profit is most important for the enterprise. Being able to turn a profit in the first year greatly reduces the risk of failure. Also, because of the limited amount of capital being invested, it is important to show a profit in order to obtain additional funds.

Another goal that needs to be attained is customer service. Being able to handle the customer's needs will help in obtaining additional freight. Also, developing a good reputation in the industry will be important in seeking out new suppliers. This is important if the company expects to grow in the industry.

Currently, the researcher looking at being a five-truck operation. However, as time goes on, the researcher expects the operation to be a twenty-truck operation. Seeking out new customers in the market will be important in the growth of the company.

In order to obtain short-term profits, cost leadership would be implemented to obtain this goal. Using dry vans instead of refrigerated units would eliminate many high costs involved in the operation. Internationals provide better fuel mileage than Fords based on consumer reports. The cost difference is very little according to Jerry Bigelow at J & B Distributors. Jerry Bigelow (personal communication, February 15, 1991). Some people just prefer certain brands of equipment to use. Also, by using tractors that are a
little better in fuel efficiency helps to reduce the cost of operation. Also, by using owner operators helps to establish market share without added costs to the operations.

Establishing the company as customer service oriented opens the door to many suppliers. Making sure freight is delivered on time is more important to a supplier than having it hauled at a low rate. By accomplishing this in a competitive industry, a company is separating themselves from others in the industry.

As mentioned before, determining what markets to haul in helps the carrier establish themselves in a competitive industry. Currently, the researcher would be looking at hauling in the Midwest but would only take a load from a supplier if I have a backhaul would be available for the load. By doing this, the risk of deadheading is reduced and profitability is achieved.
In starting up a new business, a plan must be drawn up in order to set the direction of the company. One area that must be looked at are expected expenses for a month of operation. It is necessary to analyze these expenses in order to plan the expected cash flow. Nothing can put greater pressure on a company than to run short on cash. By analyzing expenses, management can determine which costs are fixed costs and which costs are variable costs.

Appendix A lists expected costs of one alternative method of operation by considering using tractors that are bought as used equipment. Terminal operation costs would be based on leasing a warehouse. Appendix B lists expected costs for a second alternative method of operation by proposing to use tractors that are leased. Terminal operation costs will be considered by analyzing purchasing a warehouse. Each expense must be analyzed to choose the best option.

The first step in starting up a trucking company is to find a location where operations will be handled. One option is to find a warehouse and enter into a lease agreement. Leasing reduces the amount of capital that will be needed in the start up of the operation. After a thorough search, the researcher found a warehouse on the east side of Green Bay which could be used as a operation for a trucking company. After conversations with the owner, the researcher could enter a lease agreement for three years at a cost of $800 per month. Maintenance and insurance costs will be covered by the owner in the lease. This warehouse contained adequate office space for five people. It also had two doors for truck unloading, plus 2,500 square feet of warehouse
space. The location was near Interstate 43, which provides a good truck route for both incoming freight and outbound freight. With the three-year lease, an adequate amount of time would be given for the trucking company to establish itself and determine if future growth would be obtained. The lease agreement will allow for automatic renewal after three years.

Another option is to find a warehouse which can be purchased and used as a place of operation. The researcher contacted Paul Kaczrowski at Prestige Realty Company. He advised the researcher that a similar place of operation would cost anywhere from $50,000 to $100,000 depending on the location. The higher cost can be expected if the place of operation is in an industrial site.

Considering the alternatives, the researcher would be better off leasing the warehouse for three years. Buying a warehouse would result in a cash expenditure in the first year of $50,000, while leasing a warehouse in one year would cost $9,600. The difference in cost would be $40,400, which could be used in other areas of the business. Paul Kaczrowski (personal communication, March 8, 1991). Currently, the researcher cannot afford to purchase a warehouse, pay insurance, utilities, and property tax on it. Leasing allows the business to build up needed capital for future purchase of a terminal operation.

The equipment that would be used in the trucking company must be analyzed carefully in order to establish all costs. One option is to purchase tractors from North American Van Lines in Green Bay. These are tractors that North American had purchased new and now have between 400,000 to 500,000 miles on them. Maintenance has been kept up on these tractors; therefore, they are in very good condition. North American will sell these tractors at a cost of
$12,500 per tractor. These tractors are 1986 International cab overs, one of the very best in the trucking industry according to Jerry Bigelow at J & B Distributors. Jerry Bigelow (personal communication, February 15, 1991). Currently the researcher would be looking at starting up the trucking company with purchasing three tractors from North American Van Lines. The total cost will be $37,500 for three tractors. If the researcher would only go with one tractor, revenue would go down substantially. Also, not many shippers would use a carrier with one truck. Also, if something would happen to that truck; such as, a breakdown, no revenue would be coming in. At this time, more than three trucks would require more capital; and the researcher is limited as to the amount that I invested.

Leasing equipment would be another option that could be considered. Currently, the researcher could lease tractors from Cummings in DePere, WI, at a cost of $24,000 per tractor on a one year lease. These tractors are relatively new and very dependable. Insurance and maintenance would not be covered under the lease. Considering the financial position of the other areas of the enterprise, this cost is excessive. By leasing the tractors, the extra cost would amount to another $34,500. Due to the researchers limited amount of capital to invest, it would be better to purchase used equipment at the present time.

Trailers are going to be needed in order to move the freight. One option is to lease trailers from Gelco in Green Bay on a yearly basis. The lease agreement provides for insurance and maintenance coverage on the trailer. Currently, the cost is $300 per month, plus $.02 per mile.
Currently, the researcher could be looking at leasing 5 trailers from Gelco. With an average of 100,000 miles per trailer, the cost will be:

<table>
<thead>
<tr>
<th>Trailers Cost</th>
<th>Mileage</th>
<th>Total Leasing Cost Per Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>$18,000</td>
<td>10,000</td>
<td>$28,000</td>
</tr>
</tbody>
</table>

Used trailers can be purchased anywhere from $15,000 to $25,000 per trailer. Insurance per trailer would cost $1,000 for one year and maintenance for one year would cost roughly $800 per trailer. Again, looking at the alternatives and considering the limited amount of capital, the researcher would be better off leasing the trailers until future capital is built up.

The trucking company that the researcher is considering will have two owner operators running under its authority. The reason for having two owner operators is to help increase the size of the company without purchasing equipment. The decision to have two owner operators is to see how well using owner operators works in the company before expanding by putting on more owner operators. The owner operators will provide the tractor and pay for all licensing and permits, plus other expenses. The researcher’s company will provide the trailer for their use. The owner operators will sign an agreement with my company in which they will receive 80 percent of the revenue on a load in which they haul. The use of owner operators helps to reduce costs involved in tractors, insurance, and licensing, and permitting. Many trucking companies operate using owner operators because it is advantageous to the company to expand quickly while reducing costs.

Selection of owner operators will be based on past driving records and employment history. Also, referrals are a good way of selecting owner operators. This process is necessary because a poor employee who is unwilling to work results in lost revenue for the company.
Before a truck will be able to operate on the highways all licensing and permits must be obtained. For three trucks and five trailers the total costs for licensing will be $4,800 per year. Fuel permits for a year will be $720, while bingo stamps will cost $123. Bonding that each state requires before a carrier can operate will cost $420 per year. It is important to note that the company will not be operating in all 48 states. The company will only be operating in 12 states. The reason for this will be discussed later on.

Insurance costs must be looked at carefully. In recent years insurance has risen quite rapidly; however, it now seems to have leveled off. In order to fully insure three trucks with the proper liability, collision, and cargo insurance, the researcher would be looking at a total cost of $32,250. A cheaper rate may be obtained if coverage were less, and collision insurance dropped.

Another area of expense that must be analyzed is fuel costs. The recent trouble in the Persian Gulf caused prices to rise and fall very easily. Fuel costs can have a detrimental effect on the profit margin on a trucking company. It is therefore important to analyze these costs carefully. Any miscalculation could reduce the expected earnings a company expects to receive. Calculating that three trucks will run an average of 100,000 miles per year, and the average cost per gallon of diesel fuel be around $1.40 per gallon, we can begin to determine fuel costs. The $1.40 per gallon cost was determined by the average price per fuel in March 1991. This is only an estimated cost because fuel costs often fluctuate due to fuel shortages and surplus.
The researcher expects the tractors from North American Van Lines to average 5 miles per gallon (mpg). The average miles per gallon in the trucking industry ranges between 4-7 mpg. Therefore, with these figures in mind, the total fuel cost per year should be roughly $84,000 based on purchasing 6,000 gallons of fuel. Fuel taxes, would run around $550 per truck, or a total cost of $1,650 for three trucks.

Discussions with Jerry Calaway, owner of Calco Express, and Jerry Bigelow, owner of J&B Distributors indicated that an accurate estimate of maintenance costs for a tractor was $500 per month. Therefore, the total cost for maintenance that we can expect to see will be roughly $18,000 for the year.

Office supplies and equipment needed for the office should run roughly at $10,000 per year. Jerry Bigelow (personal communication, February 15, 1991). These expenses include paper, pens, desks, calculators, fax machines, and copiers. Some of these costs may be reduced depending upon the wear and tear of the equipment. One cost in the office that people fail to mention is the telephone bill. In the transportation industry, most of the work in the office is done on the telephone. Therefore, a operation of our size can expect the telephone bill to be $500 per month, or $6,000 per year. Jerry Bigelow (personal communication, March 5, 1991).

Wages for drivers and office personnel have to be determined when figuring out total expenses. It is expected that three company drivers will run 300,000 miles in a year. This is based on the industry average of a driver logging 100,000 miles in a year. The average starting wage for drivers is 22¢ per mile. Therefore, three drivers will result in $66,000 per year in wages. Office personnel will be needed for regular office duties and
dispatching. Two people should be able to handle the workload that five trucks will create. Currently, a dispatcher's starting wage is $18,000 per year. A secretary can be hired for $14,000 per year. The total expenses for office personnel will be $32,000 per year. These wage expenses include unemployment, workmen's compensation, and social security in the salary. Currently no extra benefits except insurance will be offered to the employees.

Finally, the researcher must look at miscellaneous costs such as pallets, load bars, forklifts, and jacks. We can expect these costs to be $7,000 per year for a company with five trucks. Although it is hard to get an exact figure, these costs should be determined for the overall cost report.

Considering the two options in starting a trucking company, the costs on Appendix A should be used as a plan of operation. Due to the researcher's financial position, costs have to be kept at a minimum the first few years in order to get the business started in the right direction. Purchasing a warehouse and trailers places a heavy burden on capital requirements. Leasing allows capital to be used in other areas of the enterprise.

In analyzing the variable costs on Appendix A, it is determined that these costs are very high in the trucking industry. For a 5-truck firm, total variable costs after one year of operation amounts to $284,250.00 or $23,688.00 per month. Therefore, enough revenue must be generated in order to help cover these costs. This figure will be used later on in order to determine the adequate cash needed to start the business.

With all these expenses analyzed, the total costs a five-truck motor barrier can expect to incur in the first year of operation will be $370,313. With these costs in mind, it can be determined that the trucking industry has
many costs that affect the daily operation of the company. In order to
determine the amount of money needed to finance the company, one must now
begin to look at expected revenue from the operation.

A motor carrier's expected revenue comes from moving freight; therefore,
any time a truck is moving without a load that truck is not making any money.
The trucking company that the researcher is proposing to start up will look at
obtaining backhauls before an outbound load is hauled. If deadheading can be
reduced to a minimum, profitability can be obtained.

There are four major companies that the company would be working with on
outbound shipments. They are James River, U.S. Paper, Green Bay Food, and
Shade Information Systems. In the transportation industry, contacts are very
important in obtaining freight. All of these companies have people that the
researcher has dealt with in the past or present. These people have assured
the company of outbound freight to the destinations that the researcher would
be looking for on a weekly basis. By obtaining shippers with this type of
backing, the company can begin to concentrate on obtaining backhauls.

Another option is to consider hauling specialized freight such as frozen
foods. Hauling frozen food requires specialized equipment which can be very
expensive. Refrigerator trailers cost another $10,000.00 per trailer. Also,
driver must know exactly what they are doing with the freight because this
product is highly perishable. Anchor Foods in Appleton, WI, would load two
trucks per week with their products. Also, Schreiber Foods in Green Bay, WI,
would load anywhere from one to three trucks per week. However, considering
the extra costs involved, it is too risky at this time to enter into hauling
specialized freight.
One major argument in the trucking industry is long-haul versus short-haul freight. Many people will argue over which is more profitable. For the purpose of this report, short-haul will be any load under 500 miles. There are people in the industry who feel that as long as a truck is moving loaded, they will make a profit. Long-hauls will provide greater revenue per load. However, the greater profit per truck is obtained by the shorter hauls.

For example, consider a truck taking a load from Green Bay, WI, to Los Angeles, CA. The mileage is 2,400 miles. A carrier should be able to get $1.15 per mile, or $2,760 for the load. The carrier must now obtain a backhaul out of California. California is a very populated area with much freight going in, but little freight going out. Obtaining backhauls is very hard to do. Often a company must work with a truck broker to obtain freight.

Assuming that the company manages to get a load from Los Angeles, CA, to Pittsburgh, PA. The mileage between the two cities is 2,412 and at a rate of $.80 per mile, the revenue for the load is $1,930. Now the company has to move the truck out of Pittsburgh. Working with another truck broker, the company may get a load going to Detroit, MI, that pays $.90 per mile or $251. The possibility exists that the company may get a load out of Detroit, MI, to Green Bay, WI, that pays $.90 per mile or $415 to the truck. Therefore, the past two weeks the truck has done the following:

<table>
<thead>
<tr>
<th>Route</th>
<th>Distance</th>
<th>Rate</th>
<th>Revenue</th>
</tr>
</thead>
<tbody>
<tr>
<td>Green Bay, WI, to Los Angeles, CA</td>
<td>2,400</td>
<td>$1.15</td>
<td>$2,760</td>
</tr>
<tr>
<td>Los Angeles, CA, to Pittsburgh, PA</td>
<td>2,412</td>
<td>$.80</td>
<td>$1,930</td>
</tr>
<tr>
<td>Pittsburgh, PA, to Detroit, MI</td>
<td>279</td>
<td>$.90</td>
<td>$251</td>
</tr>
</tbody>
</table>
Detroit, MI, to Green Bay, WI
461 Miles at $.90 Per Mile = $ 415

Total Revenue $5,356
Total Miles 5,552

Therefore, if one looks at the revenue per mile that this truck has made in the past two weeks, it would be as follows

Revenue $5,356
5,552 miles = $.96 Per Mile Truck Revenue
on Long-haul.

It must be noted at this time that due to the freight situation out of California, this particular movement cannot be counted on all the time. The movement will probably change on each truck that moves out of Los Angeles, CA. For the purpose of this report, the researcher has used an average movement that a carrier would encounter on a two-week trip.

Now consider a short-haul movement that the researcher is currently proposing for the trucking company. The plan is to take two loads per week from James River in Green Bay to Chicago, IL. The current rate is $350 per load. Through the researcher's contact with Jean Nelson at James River, the company can count on at least two loads per week going to Chicago. The company has also been promised by Coca-Cola at least two loads per week out of Chicago. These loads will go to either Sheboygan, Oshkosh, or Green Bay, WI. Currently, the rate is at $197 per load. Therefore, the following revenue that can be obtained in one week on this movement is as follows:

Two James Rivers Per Week
Green Bay to Chicago
197 Miles at $350 Per Load = $ 700

Two Coca-Cola Loads Per Week
Chicago to Green Bay
197 Miles at $197 Per Load = 397
Total Revenue (2-week period) 2,188
Total Miles 1,576

$2,188
1,576 Miles = $1.39 Per Mile Truck
Revenue on Short-haul.

As you can see from the two examples given, the total revenue per mile is greater on the short-haul versus the long-haul. Now look back on the total expenses for the total year. This was calculated at $370,000 for a entire year. Assuming that three trucks will run about 300,000 miles yields the following:

Total Expenses divided by Total Miles = $1.23 per Mile
370,000 on Truck Expenses
300,000

Therefore, on long-haul we see:

Total Revenue - Total Expenses = Total Profit
Per Mile Per Mile Per Mile
$.96 - $1.23 = ($ .27)

Short-haul

Total Revenue - Total Expenses = Total Profit
Per Mile Per Mile Per Mile
$1.39 - $1.23 = $.16

As we gather from the following figures, operating on moving freight long-haul over a two-week period results in a total loss of $.27 per mile, while moving freight short-haul results in a profit of $.16 per mile. Therefore, from analyzing these two examples, a company's greatest profit comes from moving as much outbound freight as possible because this is where the higher revenues are. Also, it is important to have contracts with shippers that one knows in order that payments will be received. Moving freight long-haul results in lesser profit per truck. Drivers may make more money by moving freight long-haul; but if a company is to prosper, freight
must be moved in a way that results in profit for the company. Many truck companies may scoff at these figures and argue the results, but truck companies close their doors due to operating at a loss.

The following is a listing of loads that the researcher plans to move with three company trucks and two owner operators (see Appendix C). These are loads in which the company will have contract agreements with each shipper, and loads that can be counted on each week. The researcher's plan is to only move freight for which profitability can be achieved. As the following table shows, expected revenue per week will be $10,158. Based on 50 weeks, the total expected revenue for one year of operation will be $507,900. Again, it is important to note that the company will only be moving freight where a backhaul will be available for the truck.

With the information gathered on expected revenue and expected expenses, one can now begin to determine the loan needed from a bank in order to start the business. Currently, the company is expecting yearly revenues at $507,900 and yearly expenses at $370,313 for the first year of operation. It was previously determined that monthly expenses will be $23,688. Therefore, one must factor enough cash into the loan to help cover these expenses.

The following table lists the expenses that is needed to cover in order to properly start the trucking company (see Appendix D). Because expected monthly revenue will be $42,325 and the terms of payment will be within 30 days of receipt of invoice, expected cash flow from operating activities should begin flowing into the company on the second month of operation. To ensure adequate cash is available, two months of expenses on variable costs were factored into the start up costs. Also, $35,000 in extra cash as a
buffer for unexpected expenses was factored in. Therefore, the total cash
needed to start up the trucking company will be $168,763.

The researcher has been in contact with Bank One in De Pere, WI, about a
small business loan. They are willing to provide a 5-year loan at 12%
interest, providing a 30% down payment. Rounding start up costs to $170,000,
30% down payment will be $51,000. This will leave $119,000 to be repaid to
Bank One within five years. Using the amortization schedule, the following
repayment terms occur:

<table>
<thead>
<tr>
<th>Annual Interest Rate</th>
<th>12%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Months</td>
<td>60</td>
</tr>
<tr>
<td>Principle Amount</td>
<td>$119,000</td>
</tr>
<tr>
<td>Monthly Payments</td>
<td>$2,647</td>
</tr>
<tr>
<td>Total of Payments</td>
<td>$158,825</td>
</tr>
</tbody>
</table>

The income statement on Appendix E lists the expected net income after
the first year of operation. As the table shows, net income after taxes
results in a $37,367 profit. One point that needs to be mentioned is the
owner operator expense. As mentioned before, two owner operators would be
operating under the company's authority. They will be signed under a contract
agreement which will pay them 80% of the revenue on the loads they haul. The
owner operators would be used on the James River loads to Chicago, which
brings back Coca-Cola from Chicago, and the round trip U.S. Paper loads from
Green Bay, WI, to Chicago, IL, and from Chicago, IL, to Appleton. The
expected revenue from these loads in one year's time will be $110,000. Since
the owner operators get 80% of this revenue, the owner operators expense will
be $88,000.
Appendix F lists the net income the company can expect to make during its second year of operation. Two expenses have been eliminated or reduced for the second year of operation. Since the tractors are purchased, this expense will not be on the income statement. Office supplies and equipment expense should be reduced by $7,000 due to the fact that most of the office equipment purchased in the first year will be used in the next coming years.

With these expenses out of the income statement and assuming everything else is constant, a net income of $65,117 should result. As the income statement shows, a net income will result if expenses are controlled and if the routing of the trucks is carefully watched so each load results in a profit. The plan is to put $20,000 of the net income in retained earnings for the future expansion of the company. Hopefully, as time goes on, more profitable loads will occur so that more trucks can be put on in order to increase revenue and profits.

Again, the plan is not to add on any trucks until a backhaul route can be established in order to maximize profitability. Hopefully by following this plan, this operation can expand to a twenty truck operation. Until the truck routes are established, it would be impossible to estimate the potential income generated from the additional trucks. All that the company can do is look for freight from shippers that fit our needs for our plan of operation.

The next section will discuss which direction the trucking company should pursue. The company could stay at its present size of 3 company trucks and 2 owner operators, or it could expand to twenty trucks. There are many problems which must be discussed in order to find the right direction to choose. Hopefully, the next section will provide an insight as to the feasibility of starting a trucking company.
DESCRIPTION OF POTENTIAL SOLUTIONS AND CONSIDERATIONS

The previous section documented the costs associated with starting a trucking company. With the business plan that is established, a profitable operation should result. However, many of these figures are determined based on routes, rates, and the transportation industry being constant. Because the trucking environment is rarely constant, these factors have a great impact on the future of a company. Unless the company is able to react to changes in the environment, it will quickly disappear as a business. What will now be discussed is the direction the company should pursue in its operation.

With a five truck operation, profitability will result if costs are maintained. Table 5 showed that after the second year of operation, a net income of $65,000 should result. However, this figure is based on many factors being constant. Although in the first year of operation, contracts were entered into with shippers for freight, this may not be the case in the future years of operation. Competition from other carriers may come in and undercut the freight rates in order to obtain the freight. If this were to happen, pressure will be put on the company to find other shippers that can provide profitable routes. It is important to remember that the strategy for this trucking company is to minimize deadhead miles. If new routes are established that include deadhead miles, net income could decline by 10% to 15%. Based on the risk involved in the start up of a new trucking company, it is not unreasonable to expect a 10 percent return on investment.
Another problem with a small five truck operation will be in turnover of drivers. With a small operation benefits to the employees will be a minimum. Probably the only benefit will be health insurance for the employees. Larger truck companies such as J.B. Hunt and Schneider can offer employees the full benefit package. Therefore, what often happens is a young driver gains experience with a small company and leaves for a larger company. This results in breaking in a new driver and incurring extra costs.

Finding new drivers is not an easy process. Often a company may have to go through ten people before they find one good one. Not having drivers to haul the freight will put pressure on the company if they cannot haul the shippers freight. This will also have an effect on revenue and income for the company if freight is not being moved.

Basically, a small five truck operation will be profitable if it is a family-owned operation, with the family doing the driving. However, if a small truck company is going to rely on other people to help the organization, many problems tend to occur. It is important to note that if service is not provided to a shipper, freight will not be provided to the carrier. That is the main reason why shippers seek out larger carriers who can provide trucks when needed. For this reason, keeping the truck operation at five trucks is an undesirable alternative. There will be too much pressure on the company to maintain drivers and keep service to shippers at adequate levels.

The next direction the company should consider pursuing is expanding the operation to a twenty truck operation. There are two ways a twenty truck operation can be accomplished. One way is to keep buying tractors and depreciate their value. However, buying trucks that will last only three to
four years results in replacing them at a fast rate. Purchasing new tractors results in a cost of $90,000 per tractor. Both methods result in pressure on cash flow and income for the company.

Expanding the operation purchasing trucks will put more pressure on finding reliable drivers to operate them. A training program may have to be established in order to gain employment from drivers. Expanding the benefits to the employees will probably have to be considered in order to reduce the turnover.

Expanding using owner operators, this can reduce the costs of hiring new drivers and the training program. However, since the owner operators will receive 80% of the revenue, net income will be less than if the company purchased its own trucks. Another problem is keeping the owner operators on with the company. It has to be noted that a owner operator is like a small businessman. They, in fact, own their own business. Therefore, if the routes, the products they are hauling, dispatchers, and method of payment are not to their liking, they leave and go elsewhere. After working for an operation of this caliber and seeing others like it, maintaining the same owner operators for more than six months is a uncommon occurrence. Often a owner operator will leave and move on to another company.

If owner operators will not stay with the company, pressure will result in not being able to haul the freight for the shippers. This will provide a strain on relationships with the shippers. If service cannot be provided to the shippers' satisfaction, contracts will be cancelled. Therefore, pressure will result in trying to find other shippers for which to haul freight. All of these problems will have an effect on expected revenue and income for the company. Therefore, expanding the truck company by using owner operators and purchasing additional equipment is an undesirable solution. There will be too much pressure on the company to maintain an adequate cash flow and be able to provide service to shippers.
Resolution

At the present time, the solution as to whether or not to start a trucking company is to wait. Currently there is too much pressure on finding good drivers with good driving records and who can pass a drug test. Insurance costs have risen in the past and the current outlook is for further rate increases. Keeping driver turnover at a minimum in this business is a very hard task. If not accomplished, revenue and income will suffer.

The next problem is obtaining the needed capital to start the business. The down payment alone to start the operation is $51,000. In order to expand the company, more capital will be needed. This may involve finding partners and/or investors. If too many people get involved, decision making could suffer.

As pointed out previously in the report, obtaining backhaul freight in order to minimize deadheading is very important. As the company expands, the need to obtain backhaul freight increases. Often deadhead miles will increase, which results in lower income. Maintaining the backhaul freight also increases. There is just too much competition out there to keep the same customers. Therefore, routing the trucks will often change more rapidly than one plans. A company with twenty trucks and a plan of secured backhaul can overnight find themselves with no backhaul freight available. Imagine having twenty trucks moving out with no freight coming back in. This problem, no matter how hard one tries to avoid it, occurs all the time in the transportation industry.
If searching out backhaul freight is a problem, try collecting on it. Uncollectables in this industry result in a loss of 10% of the revenues. Remember that the estimated income in this report is based on contract commitments from shippers. If this freight falls through, a carrier is relying on the word of the shipper for payment. If a truck has been sitting for two or three days in an area waiting for a credit check its return may be too late. Another carrier will come in and haul the load. Not hauling any freight results in no revenue for the company.

Finally, and most important, one has to ask himself if they are made for this business. This is not an easy business to enter. Dealing with drivers on a day-to-day business who are unwilling to work can effect anybody. If handling the pressures of needed capitol, drivers, and shippers is to one's liking, that is fine. However, people have certain moral standards that they live by. Starting up a trucking company no longer interests the researcher because it would be going against these moral standards. Therefore, the decision is not to start a trucking company but to look for something else that captures the researcher interest.
Bibliography

Traffic Management (1991), How Intermodal Stacks Up, Mitchell E. MacDonald.

Transportation & Distribution (1991), Protect Your Profitability, Barry Brandman.

## Appendix A

<table>
<thead>
<tr>
<th>Fixed Costs</th>
<th>Total Amount</th>
</tr>
</thead>
<tbody>
<tr>
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</tr>
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<td>Insurance</td>
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<tr>
<td>Bonding</td>
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<tr>
<td>Office Supplies and Equipment</td>
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**Total Fixed Costs** $86,063.00

<table>
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</tr>
<tr>
<td>Wages (Office)</td>
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</tr>
<tr>
<td>Maintenance</td>
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</tr>
<tr>
<td>Fuel Taxes</td>
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</tr>
<tr>
<td>Phone Bill</td>
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</tr>
<tr>
<td>Miscellaneous Costs</td>
<td>7,000.00</td>
</tr>
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</table>

**Total Variable Costs** $284,250.00

**Total Estimated Costs Per Year** $370,313.00
Appendix B

### Fixed Costs

<table>
<thead>
<tr>
<th>Cost Description</th>
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<tr>
<td>Office Supplies &amp; Equipment</td>
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**Total Fixed Costs** $219,563.00

### Variable Costs

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**Total variable costs** $240,650.00

**Total estimated costs per year** $460,213.00

VII
# Appendix C

## Planned Load Hauls

<table>
<thead>
<tr>
<th>Miles</th>
<th>Per Mile</th>
<th>Revenue</th>
</tr>
</thead>
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<td>876</td>
<td>1.10</td>
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<tr>
<td>724</td>
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<td>1,050.00</td>
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<td>724</td>
<td>1.10</td>
<td>796.00</td>
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<td>606</td>
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<td>606</td>
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<td>606.00</td>
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<tr>
<td>461</td>
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<td>461</td>
<td>0.90</td>
<td>415.00</td>
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<table>
<thead>
<tr>
<th>Miles</th>
<th>Per Load</th>
<th>Revenue</th>
</tr>
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<tbody>
<tr>
<td>Flat Rate</td>
<td>$350.00</td>
<td>$700.00</td>
</tr>
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<td>Flat Rate</td>
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<td>400.00</td>
</tr>
<tr>
<td>Flat Rate</td>
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<td>700.00</td>
</tr>
<tr>
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<tr>
<td>Flat Rate</td>
<td>800.00</td>
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<tr>
<td>Flat Rate</td>
<td>510.00</td>
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</table>

**Total Expected Revenue from one month of operations**

$42,325.00

**Total Expected Revenue from one year of operation based on 50 weeks**

$507,900.00

Source of information: Jerry Calaway (personal communication, March 20, 1991)
### Appendix D
### Start Up Costs

<table>
<thead>
<tr>
<th>Item</th>
<th>Cost</th>
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</thead>
<tbody>
<tr>
<td>Tractors</td>
<td>$37,500.00</td>
</tr>
<tr>
<td>Insurance</td>
<td>32,500.00</td>
</tr>
<tr>
<td>Trailers Rent (2 months)</td>
<td>4,700.00</td>
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<tr>
<td>Warehouse Rent (2 months)</td>
<td>1,600.00</td>
</tr>
<tr>
<td>Licensing</td>
<td>4,800.00</td>
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<tr>
<td>Fuel Permits</td>
<td>720.00</td>
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<tr>
<td>Bingo Stamps</td>
<td>123.00</td>
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<tr>
<td>Bonding</td>
<td>420.00</td>
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<tr>
<td>Fuel Costs (2 months)</td>
<td>14,000.00</td>
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<tr>
<td>Office Supplies and Equipment</td>
<td>10,000.00</td>
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<tr>
<td>Maintenance</td>
<td>3,000.00</td>
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<tr>
<td>Telephone Bill (2 months)</td>
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<td>Wages - Drivers (2 months)</td>
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<tr>
<td>Wages - Office (2 months)</td>
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<td>Miscellaneous Costs</td>
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<tr>
<td>Cash</td>
<td>$35,000.00</td>
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**Total Start Up Costs**  $168,763.00

Appendix E
Income Statement

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
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</thead>
<tbody>
<tr>
<td>Revenue</td>
<td>$507,900.00</td>
</tr>
<tr>
<td><strong>Expenses</strong></td>
<td></td>
</tr>
<tr>
<td>Owner Operators</td>
<td>88,000.00</td>
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<tr>
<td>Tractors</td>
<td>37,500.00</td>
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<tr>
<td>Insurance</td>
<td>32,500.00</td>
</tr>
<tr>
<td>Licensing and Permits</td>
<td>6,063.00</td>
</tr>
<tr>
<td>Office Supplies and Equipment</td>
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<td>Trailer Rental</td>
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<td>Warehouse Rent</td>
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<tr>
<td>Wage Expense</td>
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<td>Maintenance</td>
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<tr>
<td>Fuel Tax Expense</td>
<td>1,650.00</td>
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<td>Telephone Expense</td>
<td>6,000.00</td>
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<tr>
<td>Miscellaneous Cost</td>
<td>7,000.00</td>
</tr>
<tr>
<td><strong>Cost of Operations</strong></td>
<td>426,313.00</td>
</tr>
<tr>
<td><strong>Gross Profit</strong></td>
<td>81,587.00</td>
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<tr>
<td><strong>Interest Expense</strong></td>
<td>31,764.00</td>
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<tr>
<td><strong>Income Before Taxes</strong></td>
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<tr>
<td><strong>Less Taxes (25%)</strong></td>
<td>12,456.00</td>
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<tr>
<td><strong>Net Income After Taxes</strong></td>
<td>$37,367.00</td>
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</tbody>
</table>

Appendix F
Income Statement

Revenue $507,900.00

Expenses
Owner Operators $88,000.00
Depreciation Expense (Tractors) 7,500.00
Insurance 32,500.00
Licensing & Permits 6,063.00
Office Supplies 3,000.00
Trailer Rental 28,000.00
Warehouse Rent 9,600.00
Fuel Expense 84,000.00
Wage Expense 98,000.00
Maintenance 18,000.00
Fuel Tax Expense 1,650.00
Telephone Expense 6,000.00
Miscellaneous Cost 7,000.00

Cost of Operations 389,313.00
Gross Profit 118,587.00
Interest Expense 31,764.00
Income Before Taxes 86,823.00
Less Corporate Taxes (25%) 21,706.00
Net Income After Taxes 65,117.00